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vol.1

I.

DR. T. H. YORKE TROTTER

CONSTRUCTIVE HARMONY

Together with a Book on

FORM

Part I. Diatonic Harmony and Elementary Construction
,, II. Chromatic Harmony and Composition
,, III. Form

LONDON:
BOSWORTH & CO., LTD.
14-18, Heddon Street, Regent Street, W.1

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Preface to the Second Edition.

In this Edition the original plan has been kept, but, in order to carry out the intention of the author to make the teaching of harmony as practical as possible, to each chapter certain additional exercises have been added. Experience has shown that students, who have been taught to regard harmony, not as something apart from other branches of music, but as inseparably bound up with melody and rhythm, rapidly acquire the power of making compositions of their own on a given harmonic basis. It would seem, therefore, to be right, that such music-making should be begun as soon as possible. Accordingly, teachers are recommended to show their pupils the use of unessential notes, as soon as a few common chords are understood, so that compositions of some kind may be attempted and the pupils be led to connect harmony, melody, and rhythm from the very first. In the case of young children, the desired object can be gained, by causing them to complete melodies and add their own harmonies. Older pupils should at once be required to write compositions of their own on a given harmonic basis. It is a good plan for teachers to use the harmonies found in the works of great composers, so that pupils may be led to realise what beautiful compositions may be built up on very simple chords. One object in such work is to enable students to realise the functions and effects of the various chords, so that they may know at once, what harmonies will give the effects wanted in their own compositions. In all musical education the aim should be to develop the musical instinct of the pupil, so that he may be able to express what he feels in the language of music.

Preface to the First Edition.

This book is an attempt to make the study of harmony and of construction as practical as possible. With this object in view the student is taught to recognise the sound of the various chords and progressions, to be able to play on the piano any chords, to resolve discords, and to harmonise melodies at sight. Moreover, from the very beginning he is made to do things for himself; to invent melodies, to put together chords, and finally to make little compositions as exercises. By these means he should be enabled to make a practical use of what he has studied, and so become a real musician.

The analysis of the form and construction of great works is intended to help the student to understand and to interpret, while he assimilates for his own use the principles of music contained in these works. At the same time he learns to notice how the chords that he has studied are used, and how to build up compositions on a harmonic basis.

All through the book it has been the aim of the author to refer not to 'rules' but to 'principles.' It is his belief that the only music that counts is that which proceeds directly from the personality of the composer or performer. Compositions that are based solely upon strict rules and that are not the outcome of personal feeling, can be of little or no use. Music is not a matter of mechanics but of feeling. There must be principles, but rules should be only used at an early stage as props, to be thrown away at the proper time. As has been well said by a modern writer: 'Whereas a principle can be interpreted, a rule can only be applied: and whereas a principle covers a variety of typical cases, a rule covers only one. Thus the scheme of life that is governed

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by principles is prepared for any and every case that may arise, whereas the Lawgiver may count himself fortunate if no more than nine cases out of ten escape through the meshes of his net-work of rules.'

The author desires to express his indebtedness to the articles in Grove's Dictionary by Sir Hubert Parry and others, to the works on harmony and form by Mr. Hadow, Mr. Macpherson, and others, and to the writings of Mr. Corder. But for a complete statement of the principles of music the reader is referred to Miss Glyn's 'The Rhythmic Conception of Music' and 'Analysis of the Evolution of Musical Form.'[1] These works should be read by every teacher who wishes to understand what music really is.

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[1] Much of the nomenclature as well as many of the ideas contained in this work have been adopted from this book.

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Introduction.

For Teachers.

The aim of all musical education should be to make the student a musician—that is to say, one who feels and understands music. To this end all the various branches of the study of music should be directed. Moreover, it is essential that each branch should be treated as part of a whole and not as a thing in itself. The study of harmony, for example, should work in with all practical training, and should not be considered as something by itself, having no bearing on such questions as the interpretation on an instrument of some great work. It is to be regretted that in many cases at the present time the study of harmony bears no practical meaning whatever. Many students have worked through harmony books and are able to fill up figured basses with accuracy, and yet have not the slightest conception of how to use any of the chords they have learnt ; indeed they have no idea of the effect of what they write. That this state of things is wrong must be obvious to all thinking persons. If the study of harmony is of any use, it must bear practical result ; it must take its place in the making of a musician. The problem is : How can this be done ? How is it possible so to study harmony as to make oneself the better performer, the better critic, or the better composer ? The first means to achieve this end will be found in the training of the ear. Without what is called a good ear, it is impossible to make much progress in the art of music. And the ear must be trained so that the student may be able to realise the effect of what he writes. But there is much more than this to be done. Ear-training is important, but it will not by itself make an artist. It is quite possible to have a perfect ear and yet to be absolutely inartistic. Ear-training left to itself may become purely mechanical and consequently will lead to mechanical results. No one can be an artist unless he has the love and feeling for art—that is to say, unless what is called the æsthetic sentiment is highly developed, unless art is a part and parcel of his nature. As this is the case, it must be realised from the very first that the teaching of music is not merely a setting out of facts to be learned. It should be much more than this—it should be a development of the whole artist nature. And so the study of harmony should not be merely a laying down of certain rules and a working according to rule of certain exercises; it should be intended to provide material for the artist nature to work on. And all the material provided must be thoroughly assimilated and understood. The manner in which this object is attempted in the present book is first by making the student recognise by ear the chord that is studied. He must realise not only the effect but also the best way of preceding and following the particular chord he is working on. To this end he should be able to play it on the piano and introduce it in a succession of chords. Finally, he must write it down with the best context possible. As soon as sufficient material has been provided, the student should learn something about construction and should be encouraged to write little pieces of his own. No doubt at first the result will be crude and unsatisfactory, but the student must be made to persevere, and to feel for himself when his attempts are not good. In all education the important thing to remember is that it is far better for a student to work out things for himself than to imitate or simply do what he is told without effort or imagination. The personal effort is what makes for success. And so, in the development of the æsthetic sentiment, it is necessary to put the student on the line of cultivating his feeling for music; he must work out his own salvation. One means for attaining the required result is by the teacher dictating by their technical names a series of chords. These the student may write in any time he likes, he may repeat any chord and give what values he thinks best, but he must see that the accent falls in the right places. After having written the chords he must try to make the harmonies give the basis of a short composition of his own. It may be objected that a method like this puts too much strain on both teacher and student. As far as the teacher is concerned, the sooner it is understood that no one has a right to teach unless he has both accurate knowledge and the feeling for art, the better it will be for the world in general. Every teacher should be able to compose exercises to meet any special case, and to invent melodies to be harmonised, as well as to think out devices for furthering the end in view. As far as the student is concerned, it is the experience of the author that, with a proper grounding, results, that seem to the uninitiated quite extraordinary, can easily be attained. Once let a child love music and have a well-trained ear, his artistic nature will develop by leaps and bounds. How much or how little of the principles of construction should be given, depends on the nature and attainments of the pupil. But it is essential that as soon as possible the student should begin to do things for himself. A working of exercises only is apt to lead to mechanical results. On the other hand any attempt at self-expression can do nothing but good. And so, as soon as sufficient material has been collected, some sort of composition should be attempted. It is not enough to recognise chords, it is imperative that their use should become so well known that they can be introduced in the right places by the student himself. The same processes should continue till the study of harmony is completed, while to the teacher is left the task of judicious criticism and of directing efforts in the right way.

The chapter on ‘Construction’ is not written so much with a view to leading up to analysis, as to enable students to *do* things. The whole work of harmony should be synthesis—that is, a putting together of given material.

The third part of this book is, on the other hand, analytical, and, therefore, should be kept distinct. The work of analysis, if properly carried out, will help the process of synthesis, but the teacher must keep the two apart. Analysis may begin with some students at a comparatively early stage, with others it should be attempted later. The guide to the teacher in such matters is again the nature of the pupil. The great rule to lay down is that, following the law of nature, feeling must always precede intellect—that is to say, that the pupil must get the right feeling for music before he understands the why and wherefore. And yet, where there is considerable intellectual power, the teacher may take advantage of it to train it to the understanding of music at a comparatively early stage. It must be remembered that no two persons come into the world with the same natures; there are differences of intellect, of emotion, of tastes, even the sense organs are not alike. This fact must be perceived by all teachers, and on it must be based the course of instruction. What counts in the long run is the individuality of the pupil, and anything that tends to cramp and hinder the growth of the natural development must be an evil. The teacher must, therefore, follow nature and use books, not in a rigid matter-of-fact way, but with discrimination, taking what is suitable to the case in point, and supplementing what is given by exercises or explanations which meet the special requirements of each case. So only can the teaching of harmony be made to take its proper place in the scheme of musical education, and become, not a mere matter of notes and rules, but a living thing necessary to the perfection of the artist nature.

Turning to the practical side of the teaching of harmony, the teacher should devote much time to the beginnings of the subject. Starting off from the cadence, he should not go on till the effect and use of every common chord are thoroughly known. Not only so, but every exercise should be transposed into different keys, so that every key becomes alike. The foundations must be securely laid before any other building is attempted. Such work cannot be done in a short time; it needs much care and attention to get the first steps correct, but when once this has been accomplished, progress will be quick.

It is not the use of what appear to be difficult chords that gives the trouble, but the mastery over the simple triads. The use of cadences will give a starting point, valuable not only for the knowledge of chord relationship acquired, but also because the attention of the pupil is at once placed on the all important subject of rhythm. The plan adopted in this work of requiring students to insert cadences in the right places in given melodies has been found extremely useful, and many other melodies should be given by the teacher for the same end.[1] Too much cannot be made of the connection of harmony with rhythm. Once this point has been mastered, a great step has been made. At first the strict standard must be insisted on; variations on the strict standard will soon follow as a matter of course.

Before the study of harmony is commenced, a course of ear-training should have been gone through. Where this has not been the case, the task of the teacher will be made very difficult. He must then spend some time in obtaining the hearing and appreciation of the tonic triad first, and then of the dominant, supertonic, subdominant, and sub-mediant triads. When this is accomplished, progress can easily be made.

After the triads will naturally follow the inversions, which must be treated in the same way.

One thing the teacher must observe all through—that is, that rules by themselves are not sufficient without the understanding of the principles on which the rules are based. No amount of memorising rules will make a musician; it is the *reason why* that matters.

The study of harmony will then begin with the training of the ear to the recognition of all musical sounds, it will proceed by arriving at a comprehension of the fundamental principles on which music is built, and it will, all through its course, connect all musical training in one whole, so that each part while falling into its proper place will aid the development of the other parts. Moreover, all the way through the feeling for music will be uppermost, so that at the end the student is not a mere theorist, not a mechanical performer, but an artist.

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[1] This method makes the student *think* in phrases from the very first, and it is of the highest importance that he should be made to approach the study of harmony from the phrase.

HARMONY AND FORM.

By T. H. Yorke Trotter.

Part I.

Diatonic Harmony and Elementary Construction.

CHAPTER I.

Preliminary.

There are two elements in music—tone and rhythm.

Tone is the word used to express a musical sound. Sound is caused by vibrations, and a musical sound is one in which the vibrations are regular; an unmusical sound is one in which the vibrations are irregular—that is to say, in a musical sound the vibrations are of equal size and duration, while this is not the case in an unmusical sound. Tones differ from each other in duration, pitch, colour, and intensity. By 'duration' is meant the time value, i.e. crotchet, quaver, &c.; by 'pitch' the height and depth of the sound; by 'colour' the quality of the tone, i.e. voice, organ, violin, &c.; by 'intensity' the loudness and softness of the tone.

Rhythm is the periodic quality of movement. Tones following each other without recurrence, regular or irregular, are unrhythmical. It is, however, in the nature of man instinctively to group a series of recurring sounds into certain divisions, and so to give them rhythm. When by the aid of notation these groups are written down, each group is called a bar, and lines are used to separate one bar from another.

The first tone in each group or bar bears a certain stress either actually given in performance or implied. This stress is called accent. Every bar contains a definite number of pulsations called beats. There are 2, 3, 4, 5, 6, or 7 beats in a bar. The strongest feeling of accent is always on the first beat, but there are subsidiary accents, especially when the movement is slow. Accents are strict when they occur on the beats on which they are usually placed; free when they

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occur on the other beats. In every composition the number of beats in a bar is definitely established at the beginning of the piece by the signature.

Variations on the normal feeling of accent are called syncopations.

Accents may be grouped together, and the result of such grouping is called a phrase.[1] A phrase contains 2, 3, 4, 5, or 6 strong accents.

The number of beats in a bar is almost invariably the same, following the strict standard given at the beginning of the piece, but it is not necessary to have exactly the same number of accents in phrases and answering phrases, the law of music requiring strictness in smaller divisions, more freedom in larger divisions.

Melody is an ordered succession of tones of varying pitch in accordance with a rhythmical design.

Harmony is the combination of sounds of different pitch.

Contrapuntal music is music in which the chief interest lies in the independent movements of the various parts.

Rhythmitonal music derives its main interest from the rhythmic movements of the whole.

Time-outline is a succession of tones considered from the point of view of their duration. Pitch-outline, force-outline, and colour-outline are successions of tones considered from the point of view of their pitch, intensity, and colour respectively.

An interval is the distance between two tones. The smallest interval recognised in European music is the semitone. A full tone is an interval made up of two semitones. Thus C to D flat is a semitone, C to D a full tone.

Two tones sounded together may be either consonant or dissonant. A consonant interval is one that is complete in itself and does not require anything to follow it. A dissonant interval requires something consonant to follow it.

The third is the interval used in harmony on which to build up chords. Major and minor thirds and their inversions, major and minor sixths are consonances.

The fifth is a consonance, but on account of the absence of the third it has an empty sound, and is, therefore, not used so frequently by itself as the third.

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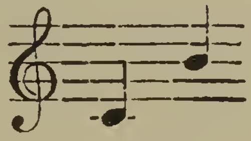
[1] By combining sounds in a phrase, some musical meaning is given to them, just as the combination of words in a sentence makes them intelligible.

The fourth, which according to acoustical theory should be a perfect consonance, gives a dissonant effect when it comes between the lowest part and any other, because the ear is accustomed to, and therefore requires, the third between the lowest and next parts. The fourth conveys the impression of being a sound above the third to which it must descend; accordingly it is dissonant. But when the interval of a fourth occurs in the upper parts this feeling is no longer present, and the interval appears consonant.

Major and minor seconds and sevenths and all augmented and diminished intervals are dissonant.

The octave is simply a reproduction of the same sound in another pitch.

Tones not heard simultaneously but following each other, may be considered consonant or dissonant just as if they were struck together.

Thus  conveys a dissonant effect, much as if the two notes were sounded together.

The step of a second, however, does not necessarily give a dissonant effect, because it simply conveys the impression of passing on to the next tone.

The tones bear the following technical names :—

1. Key-tone is called tonic because it gives *tone* to the piece.
2. Supertonic—that is the note above the tonic.
3. Mediant—mid-way between tonic and dominant.
4. Sub-dominant or note below the dominant.
5. Dominant, because it 'dominates' or governs the key, making it clear what the key is intended to be.
6. Sub-mediant or mediant *below*—that is to say, mediant as far below as the mediant itself is above the tonic. Another name for the sixth is Super-dominant—note above the dominant.
7. Leading-note, because it leads up to the tonic, or sub-tonic, note below the tonic.

The key-tone in a piece is the note which stands out as a central point and to which it is necessary to return in order to obtain a satisfactory feeling of rest at the conclusion. The sounds which come in the chord of the key-tone are called syntonic, other sounds atonic, and the music in the course of the piece circles about from syntonic to atonic, and back to syntonic, sometimes going into other keys, but returning at last to the central key, and finally to the key-tone. This is called circling rhythm.

The key-tone is established first by the insistence on it as a central point, and secondly by the approach to it from below always by a semitone.

The standard of the tones used in the key is the diatonic scale.

A scale is an ascending and descending series of sounds arranged in tones and semitones, each sound bearing a different letter-name.

In a chromatic scale—that is, one that comprehends all the sounds in use—certain letters are repeated with the addition of accidentals.

The name ' mode ' determines what kind of scale is used.

In a major mode, semitones occur between the third and fourth and seventh and eighth degrees only.

The standard for the minor mode is not so well defined, but in modern music it is provided by what is known as the harmonic minor. This scale has semitones between the second and the third, fifth and sixth, and seventh and eighth degrees. There is the interval of an augmented second between the sixth and seventh degrees.

In order to get rid of this interval, another form of the minor scale is also used. This form has semitones between the second and third, and seventh and eighth degrees. In descending it is customary to flatten the seventh and sixth degrees, for in *leaving* the key-note it is not necessary to have a semitone between the seventh and eighth degrees.

The signature of the minor scale is taken from the old Church mode known as the Æolian. This mode has semitones between the second and third, and fifth and sixth degrees. It will be noticed that there is a whole tone between the seventh and eighth degrees. For this reason the key-tone cannot stand out as a central point. In Church music there is no strong feeling for rhythm, and consequently the tonality is more vague, for it is the accent and the phrase that lead to cadences and definite key standards. In Church music there is no need for the divisions that were an absolute necessity in the music of the dance, from which sprang our modern system.

Folk-dances were in former times similar to those that are now called square dances—that is to say, a number of people took part in one figure. Accordingly it was necessary to have cadential effects, so as to define the completion of each figure. Without cadences the dancers would have no clue to the proper time to commence new figures, but the pauses given by cadences made the matter quite obvious. On the other hand, it was the aim of the Church composers to make their music quite dissimilar to the secular melodies, which gave the hearer the feeling of the dance, and so the rhythm in Church music proceeded on quite different lines.

The term 'key-signature' expresses the sharps or flats placed at the beginning of a piece in order to bring the tones into the standard of the major or minor scale.

A time-signature is expressive of the number of beats contained in each bar.

A triad is a tone with its third and another third making a fifth.

A major triad has a major third and minor third.

A minor triad has a minor third and major third.

A diminished triad has two minor thirds.

An augmented triad has two major thirds.

In the major key, there are major triads on the 1st, 4th, and 5th degrees, minor triads on the 2nd, 3rd, and 6th degrees, and a diminished triad on the 7th degree.

In the harmonic minor there are major triads on the 5th and 6th degrees, minor triads on the 1st and 4th degrees, diminished triads on the 2nd and 7th degrees, and an augmented triad on the 3rd degree.

It will thus be seen that any major triad can occur in five keys—on the 1st, 4th, and 5th of major keys, on the 5th and 6th of minor keys; every minor triad can occur in five keys—on the 2nd, 3rd, and 6th of major keys and on the 1st and 4th of minor keys; every diminished triad can occur in three keys—on the 7th of a major key and on the 2nd and 7th of minor keys; the augmented triad can occur on the 3rd of a minor key only.

The most consonant position is when a major third is below a minor third—that is to say, in the major triad. The minor triad—that is a minor third below a major third—is also consonant, though not so restful as the major triad. The diminished triad, consisting of two minor thirds, is slightly dissonant; and the augmented triad, made up of two major thirds, is a dissonance.

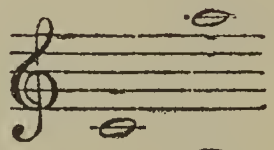
The name 'chord' is generally used for triad when a fourth tone is added by doubling one of the tones in the triad. Thus C, E, G is a triad, C, E, G, C a chord.

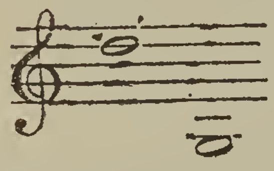
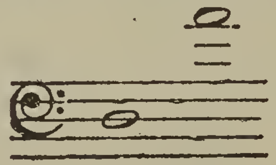
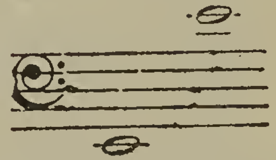
All triads and chords are built up from the lowest note, which is called the bass.

The root of a chord is the lowest tone in the original position. An inversion is when any other tone than the root is lowest.

Music may be written for voices, or for the piano or any other instrument or combination of instruments. The character of the music varies with the medium for which it is written.

The voices written for are soprano, alto, tenor, and bass.

The compass of an ordinary soprano is 

alto  tenor  bass 

The extreme notes in every case must be used sparingly.

In music written for voices the movements of each part are clearly distinguished, but in music written for the piano there are few or no indications of the movements of separate parts.

In writing music for voices it is necessary, therefore, to keep to the same number of tones in each chord, so that there may be always one tone for each voice; but in writing for the piano it is right to vary the number of tones in accordance with the effect desired.

In every case the important part, from the point of view of harmony, is the bass. It is necessary, therefore, to think first of the bass in building up chords. And, as has been seen in discussing the consonance or dissonance of the fourth, the effect of certain intervals is different when they come between the bass and another part, from cases when they come between two upper parts. The student must, therefore, be accustomed always to listen to the bass, and so he will understand the chord.

Standards of Time and Pitch.

On page 13 it was stated that tones differed from each other in duration, pitch, colour, and intensity. The difference in duration between tones gives us our time and all that appertains thereto.

There is a regular standard of time, which appears first in the bar and afterwards in the alternation of phrases. When the feeling of accent is regular in the bar, the idiom is strict, when the regular accents are broken, the idiom is free. Similarly, when one phrase exactly corresponds to another, the phrase-form is strict; when the correspondence is not exact, it is free.

The standard of pitch is founded on what is called tonality. Where there is a definite key-centre we get a strict standard; variations of the strict standard produce free form. The major scale is the standard of tonality for the major key. In the minor scale the standard is not so strict, but the harmonic minor scale may be taken to represent the strict in modern music.

There are no standards of colour or intensity.

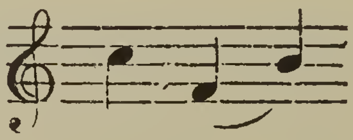
It is necessary for the student to realise the strict standard from the very beginning. The art of music largely consists in making variations on a strict standard. Hence it is essential to have the feeling of the strict standard, and then the use of variations on it will be apparent.

CHAPTER II

Part-Writing.

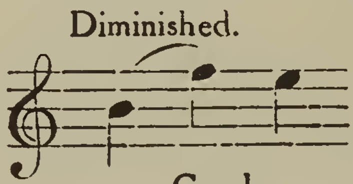
As has been noticed, part-writing varies according to the medium for which the music is written—voices, piano, orchestra, &c. When music is written for voices, the following recommendations will be found useful. It must, however, be remembered that these recommendations are not exact laws meant to apply in every case, but are intended for beginners.

1. No part should skip any augmented interval or a major seventh.

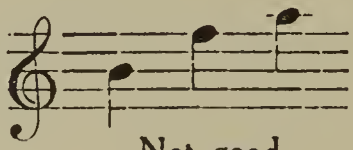


not good because of the skip of an augmented fourth.

2. No part should skip a diminished interval, unless it returns in the direction of the first note, the tendency of diminished intervals being to contract.

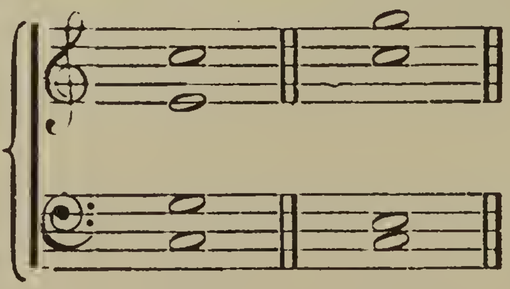


Good.



Not good.

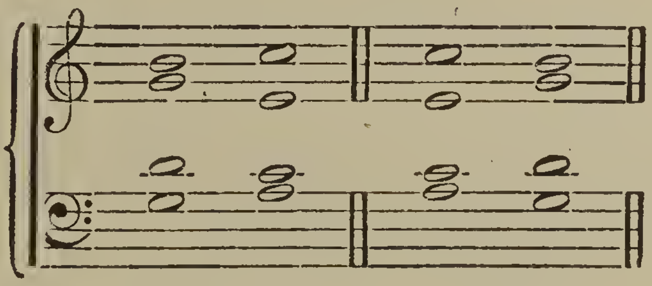
3. Do not have more than an octave's interval between treble and alto or alto and tenor. There may be more than an octave between tenor and bass.



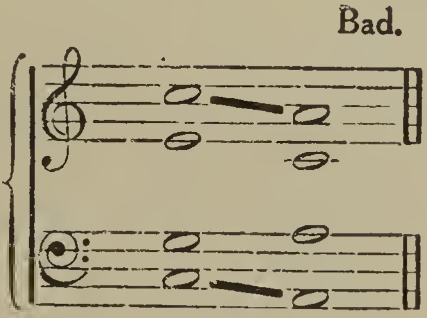
Good. Not good.

The effect of a chord with large gaps in the middle is weak and unsatisfactory.

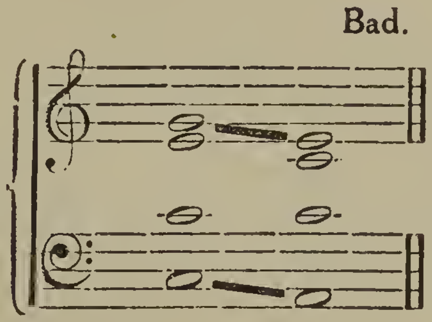
4. The best note to double in a chord is the root.
5. But the third may be doubled when it is an important note in the key—tonic, dominant, or sub-dominant.
6. Especially in the sub-mediant chord, in which the third is the tonic, it should be doubled; always when the chord precedes or follows dominant.



7. Never double the leading note.
8. The same two parts should never move in octaves with each other, because when this is the case one of the parts is destroyed, the octave being but a duplication of the note of which it is the octave.

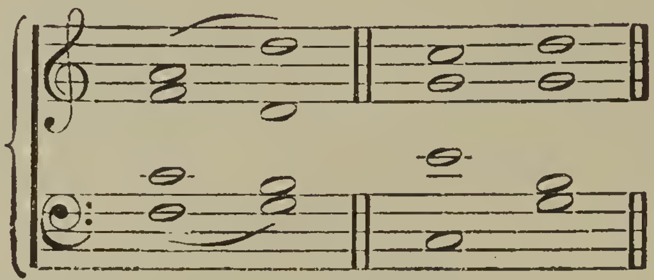


9. The same two parts should not move in fifths with each other, because when this is the case the fifth is brought out too strongly.



This prohibition, however, does not apply when one or both the fifths are diminished.

10. It is not, as a rule, good for the extreme parts to proceed in similar motion to an octave, or to a fifth, unless the top part proceeds by a step of a second only.[1]



Not good. Good.

The skip to the fifth, in the first example, accentuates this interval too much.

11. It is better to make the extreme parts proceed in contrary motion with each other, than in similar motion.
12. Especially is this the case when the roots of two chords are a second apart—e.g. F, G. When this is so the three top parts should move in contrary motion with the bass.

Contrary motion in vocal writing is always more agreeable to the ear than similar motion, and when two chords follow each other which have no notes in common (e.g. the chord F—A—C followed by G—B—D) the effect will sound crude unless the motion of the bass up and the other parts down modifies or removes the unpleasant impression.

The third is the interval on which harmony is built. Motion, therefore, in thirds is generally agreeable, as is motion in sixths—that is to say, inverted thirds.

But similar motion in other intervals between the extreme parts is not good. Hence the necessity for contrary motion.

The importance of the third is also shown by the fact that the fifth may be omitted from a chord without any ill effect; indeed in the tonic the fifth often is omitted, but if the third is omitted, the effect is hollow and unsatisfactory.

Students will of course notice that the chord is determined by the bass. For example, in the chord of C, as long as the bass has C, the upper parts may have whatever tones are most convenient, as long as they belong to the chord

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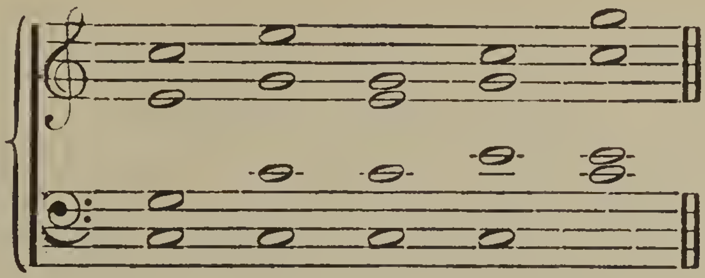
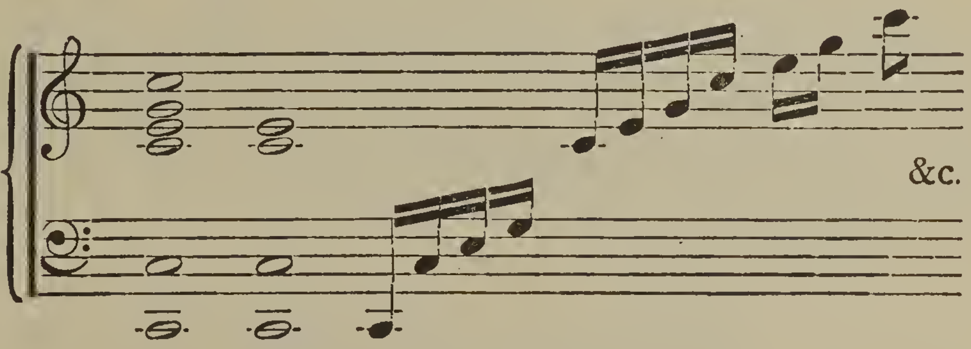
[1] The term 'hidden consecutives' is used for this approach by similar motion to an octave or fifth.

Thus, any of the following positions are good :—



In vocal writing the number of notes is limited to the number of voices employed, usually four, but in piano writing there may be just as many or as few notes as the composer wishes, and the range of the notes is far greater than in vocal writing. Moreover, chords may be written in arpeggio, instead of with all the notes struck together.

There are, therefore, many ways of writing one chord



It must be remembered, also, that the above recommendations for vocal part-writing only apply in a modified way to writing for the piano. For example, skips of augmented intervals and major sevenths can be used. But the *principles* remain the same. Fifths brought out too prominently will be unpleasant ; too much stress should not be put on the leading note ; motion in octaves is not good between the extreme parts when progressions of different chords are used. The doubling of the bass in octaves is, however, quite good, since this is only emphasising the most important part.

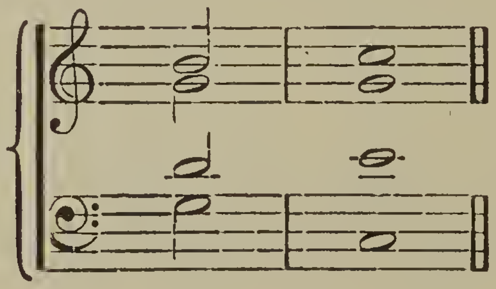
Exercise.—Write both for voices and for piano, and play on the piano in as many good positions as possible, the tonic chords in D flat, B flat, F sharp, A flat, C minor, E flat minor, and the dominant chords in A, F, B minor, C minor, E flat minor, D sharp minor.

(Students must remember that in the minor key the harmonic form of the scale is the proper one to be used, and the leading note is therefore raised.)

The Perfect Cadence.

One of the essential principles of music is that of balance. By balance is meant the answering of one phrase by another, one section by another, and so on. One use of harmony is to make these divisions obvious by means of what are called cadences.

The word 'cadence' means 'fall,' for the tendency of vocal music—and in early times nearly all music *was* vocal—was to fall to the close. The introduction of instruments has caused the close no longer to be effected by a fall, but the word 'cadence' still remains. Obviously the most important cadence is the one that concludes the piece. In old music this was almost invariably the perfect cadence or full close. This cadence is made by the dominant chord followed by the tonic. The tonic, being the final and most important, should always come on the strongest beat.



The most satisfactory close is obtained when the tonic note comes in the treble as well as in the bass; the treble should, therefore, be given the leading note followed by tonic.

The reason why this cadence was generally used is that it gives the most satisfactory feeling of finality to a composition.

The leading note, being a semitone away from the tonic, always has the tendency to *rise* to the tonic; when this tendency is gratified there is a feeling of repose. Again, the most usual progression of chords is when the roots proceed by skip of a fourth up or fifth down. Thus, when the dominant chord is followed by the tonic, both tendencies are satisfied, the leading note rises to the tonic and the root rises a fourth or falls a fifth. As a result there is a feeling of repose and of finality.

It is important to insist on the fact that the final chord must come on a strongly accented beat. The feeling for finality will not be firm if, for example, the tonic occurs on the second or fourth beats; in these cases the rhythmic instinct will expect something else to follow.

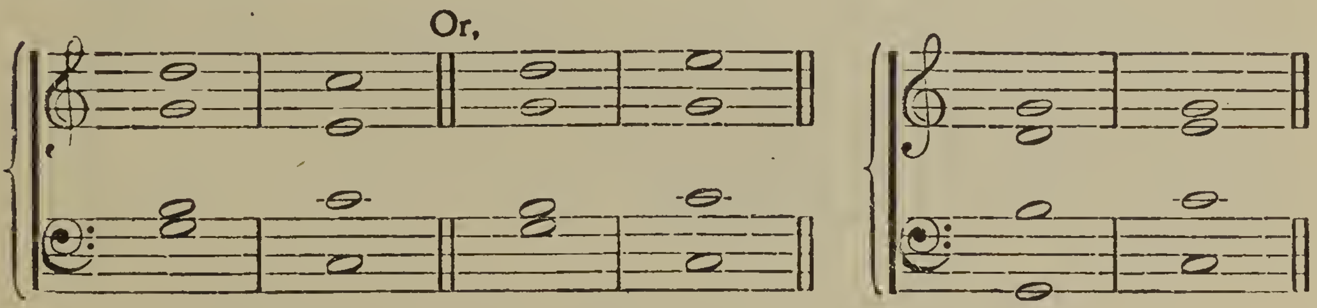
Exercises.—Write perfect cadences both for voices and for piano in D, E, B flat and D flat major, and in F sharp, G and C sharp minor.

Note.—After having mastered the principle of the perfect cadence, the student should at the piano play cadences in *all* keys.

Subsequent exercises should be treated in the same manner.

The perfect cadence should be written and played *first* with the leading note and tonic in the treble as in Ex. on page 23.

Afterwards other positions should be used as in the following:—



It will be noticed that the most satisfactory ending is when, in the last chord, the tonic note appears both in treble and bass.

The other endings given above may, however, be used freely.

Too much stress cannot be laid upon the importance to students of not only *playing* once or twice, but of *practising* their harmony exercises from the first in all keys.

In following this advice, the student is not only developing his own sense of hearing and training his ear to the recognition of chords in their relation to the tonic (by means of their character or mental effect), but he is at the same time acquiring the power of transposition by accustoming himself to *think* in all keys.

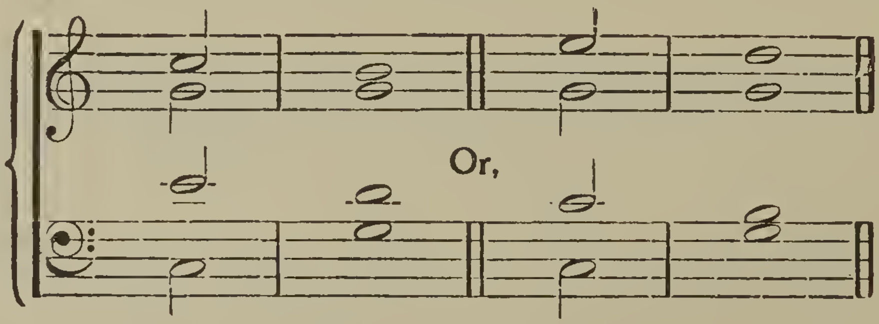
He should, also, not only make himself a fluent player of exercises in all keys, but habituate himself to realise the sound and effect of the chord before he plays it.

Students with an imperfect sense of hearing will find much assistance in the early stages of their work if, as they play the chords, they repeat their names aloud. For example, before playing the perfect cadence, the tonic should be played several times to establish the key and fix it in the mind, and after this the dominant and tonic should be played, each chord being named before it is struck.

The Imperfect or Half-Cadence.

A stanza in music consists of two phrases. When it is desired to make the division into phrases very clear, a cadence will occur at the end of the first phrase in order that the harmony may assist the melodic phrase.

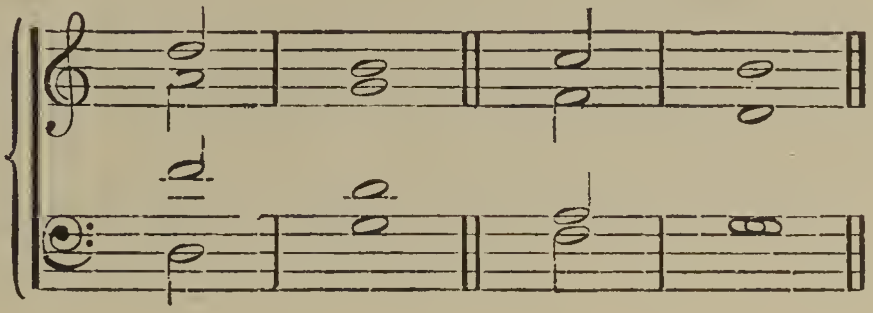
Obviously here a perfect cadence in the original key would be out of place, for such a cadence gives the effect of finality. Accordingly, another cadence is used which, while it gives a feeling of pause, yet in no way causes the hearer to think the composition is finished. This cadence is called the imperfect or half-cadence, and is generally made by the tonic or some other chord, followed by the dominant, the latter occurring on the accented beat.



Exercises.—Write and play in different positions imperfect cadences in A, F sharp, E flat major, and in B, D, and F minor, for voices and for piano.

The dominant chord thus not only serves the purpose of leading up to the tonic, but is itself useful as giving a point of repose.

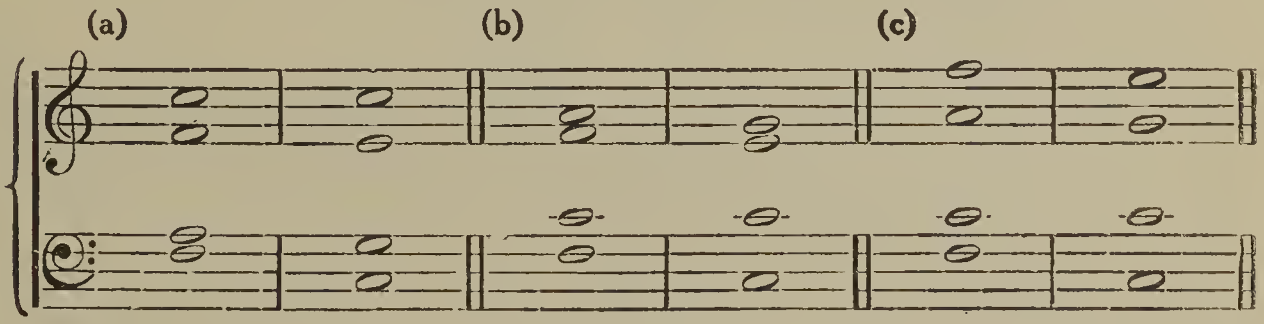
In the imperfect cadence it may be preceded by other chords besides the tonic, but the effect of pause will be given, provided it comes on an accented beat,[1] e.g. :—



The Plagal Cadence.

The most common way of ending a stanza, or the whole piece, was by the perfect cadence. When, however, the key has been settled beyond dispute, another ending may be used. This is called the plagal cadence, and is made by following the sub-dominant chord by the tonic.

This cadence frequently follows the perfect cadence, and by insisting on the tonic note which occurs in both chords, serves to give a more perfect feeling of repose.



The position at (a) is the most satisfactory, for the tonic comes in both treble and bass parts.

Exercise.—Write for piano and voices in different positions plagal cadences in C, B, and D flat major, and in F sharp and B flat minor, and then play plagal cadences in all keys.

The False or Interrupted Cadence.

Sometimes it is desired, after apparently leading up to a close, to add more to what has gone before instead of ending

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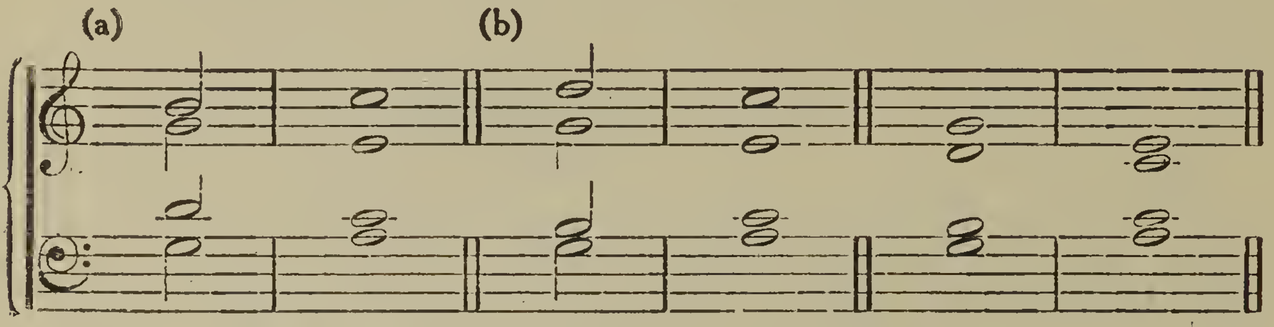
[1] It will be seen that the cadential effect is given by the dominant chord only, and not, as with the other cadences, by the combination of two chords.

In this case the dominant chord is used, but, instead of the expected tonic, some other chord follows in order to avoid a close. The chord generally used for this purpose is the sub-mediant (super-dominant), but other chords may be used. The sub-mediant frequently takes the place of the tonic, and this is so because the chords have two notes in common; while in the sub-mediant the third instead of the root is usually doubled, because it is the key-note and thus is good to double.



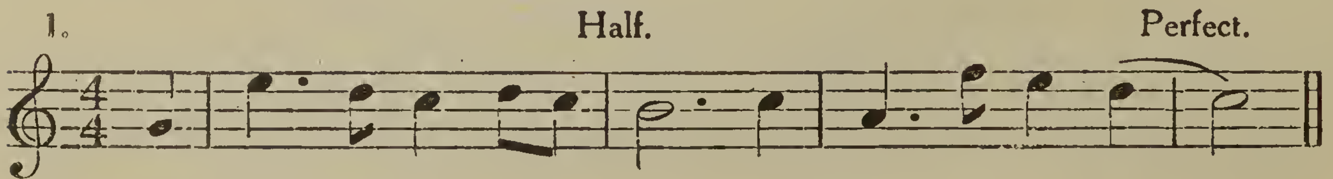
Exercises.—Write for piano and for voices, in different positions, false cadences in D, E, and F sharp majors, and in G, F, and E flat minors, and then play them in all keys.

The first position marked (a) should in all cases be mastered before the other positions are attempted.

These cadences were the ordinary ones in use in old music, but, as time went on and the principles of tonality were more and more understood, many other ways of effecting closes came into fashion. In fact, as long as the central key is clearly defined, it matters little how the cadence is made. It is necessary, however, for the student to master the primitive forms first.

The following fragments are given in order that the student may understand the use of cadences in simple music. Without harmonising the whole of the melody, the student should fill in the chords required to make the cadence, of whatever kind it may be.

1.



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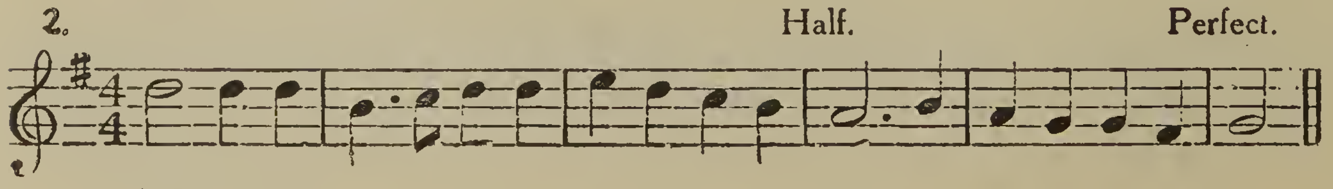

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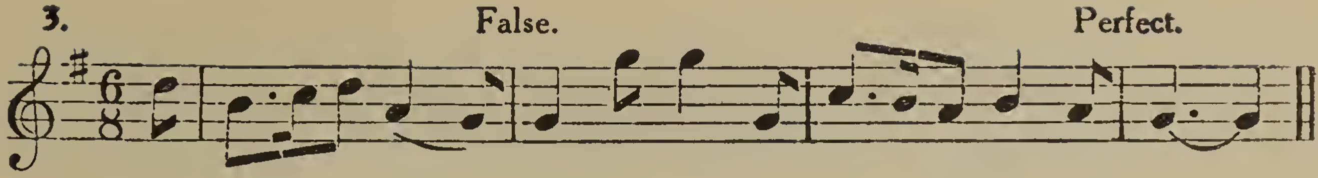

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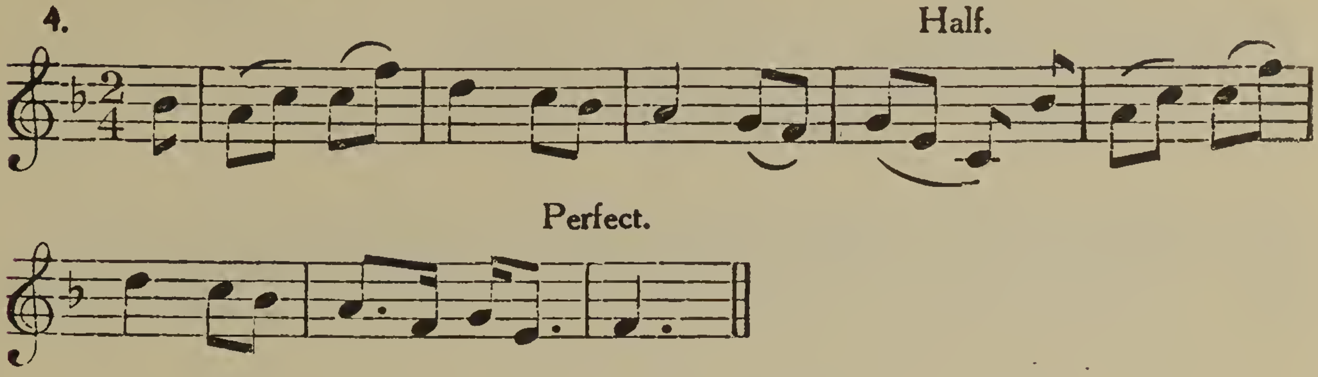

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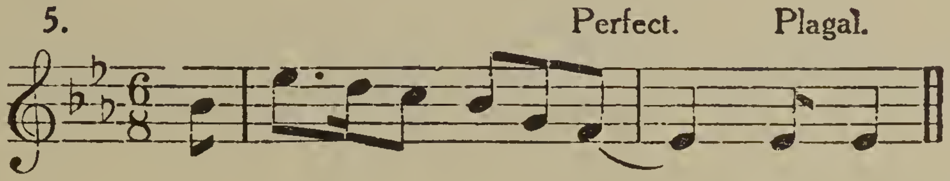

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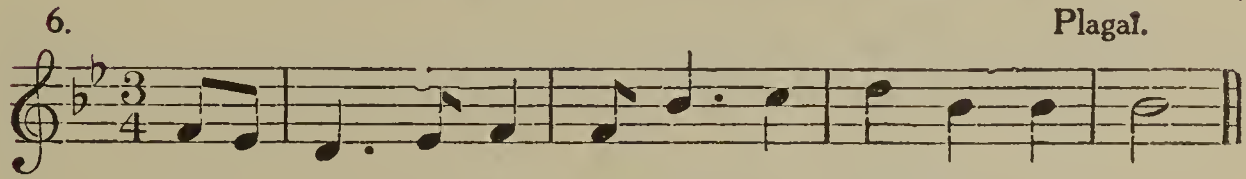

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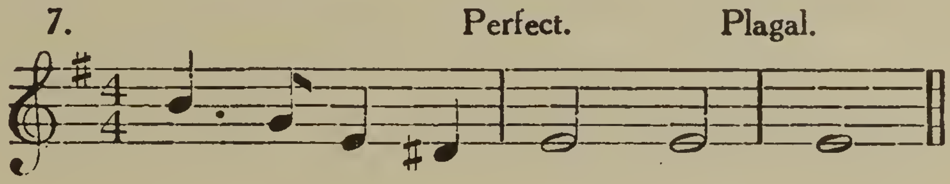

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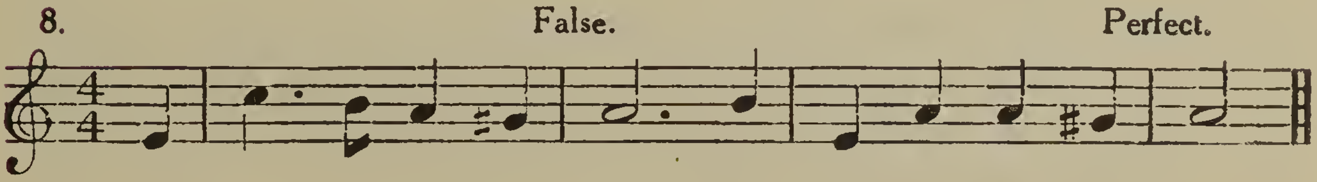
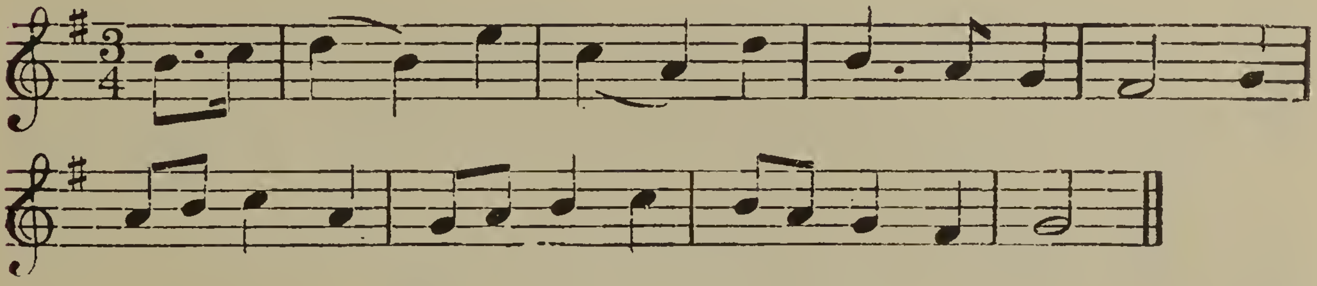


In the following exercises, the student must determine what cadences must be used and where they should occur.

1.



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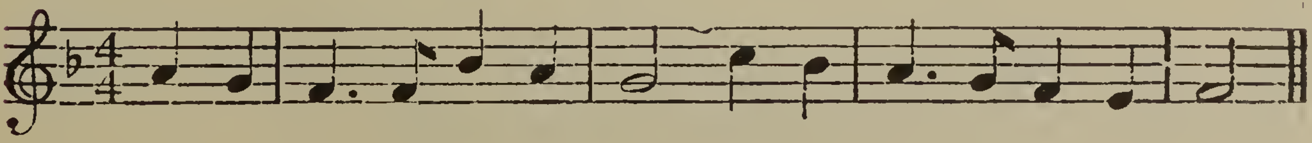

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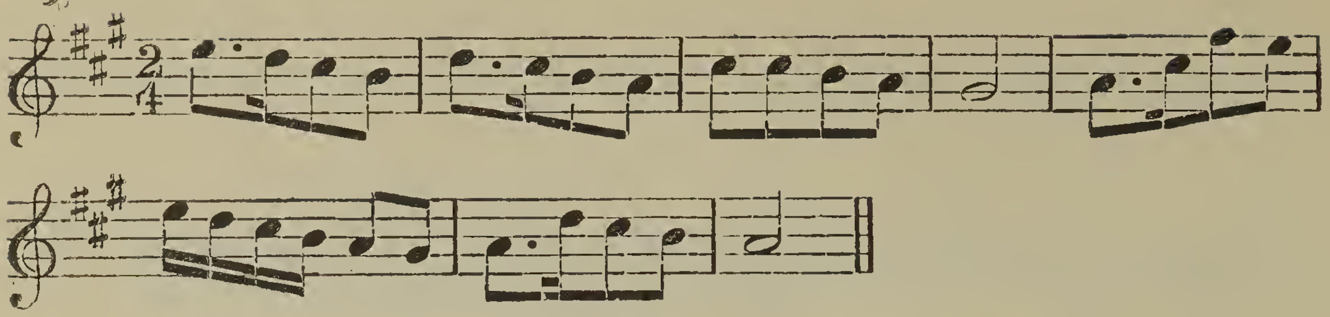

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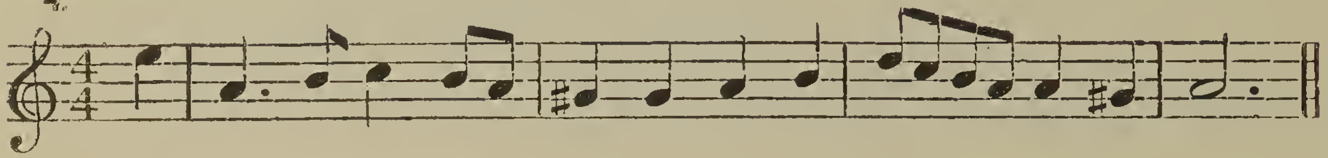

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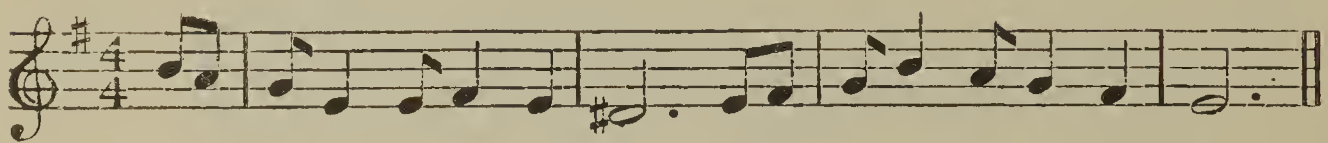

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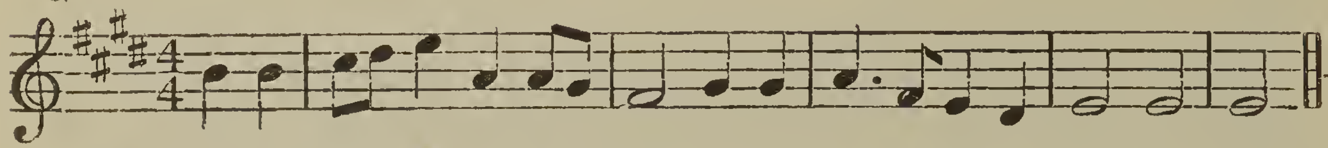
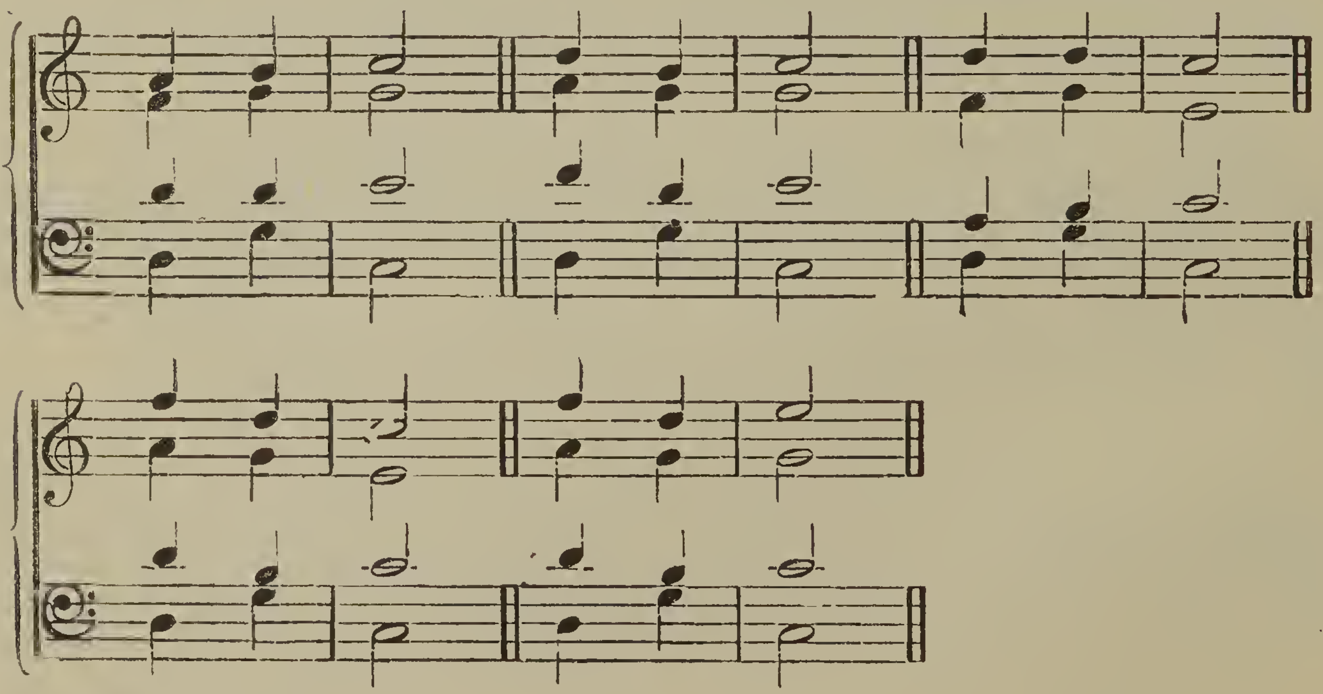


If the student has thoroughly mastered these cadences, he will have a practical acquaintance with the tonic, dominant, sub-dominant, and sub-mediant chords. The next step will be to learn the uses of all the triads, and for this purpose it will be best to notice what chords are the proper ones to employ before the chords used in the cadences. The best chord to use before the dominant in the major key is the supertonic. The following are some of the ways in which the supertonic precedes the dominant in the perfect (or interrupted) cadences.

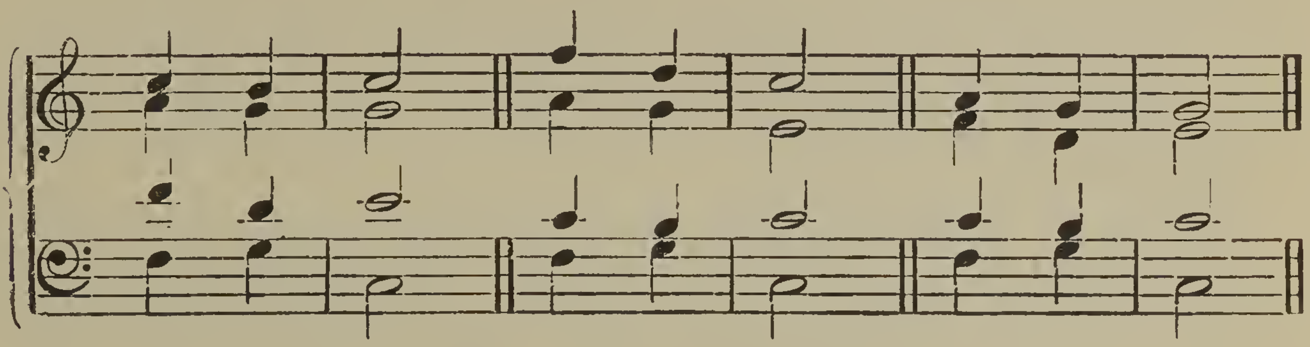


Exercise.—Write and play in different positions in every major key the following chords—supertonic, dominant, tonic, and supertonic, dominant, sub-mediant.

In the minor mode the supertonic is a diminished triad. It is not used in its original position so often as in the major mode on account of the dissonant effect of the diminished triad.

The sub-dominant can also be used before the dominant. In this case it is necessary to make the three top parts move in contrary motion with the bass.

The following are some of the positions of the sub-dominant and dominant triads in the cadence:



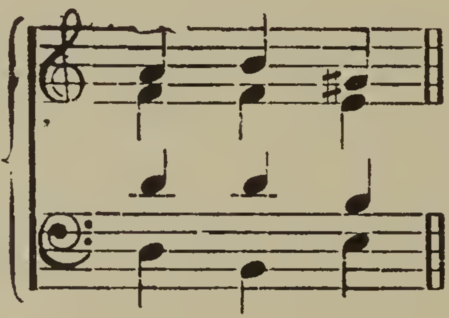
The same progressions are equally good in the minor mode.

Exercise.—Write and play in different positions in all major and minor keys the sub-dominant, dominant, and tonic triads.

Finally *all* the triads in both major and minor modes should be studied. The best progressions occur when the root of a chord goes up or down a fourth or down a third. Thus the C major chord can be followed by the F major, G major, or A minor chords. Roots should only go up and down a second between the dominant and sub-mediant chords—and in this case it is necessary to double the third in the sub-mediant chord, so as to make it resemble as far as possible the tonic. A root may go up—but not down—a second between the sub-dominant and dominant triads. The diminished triad on the leading note should be avoided because of its dissonant effect.

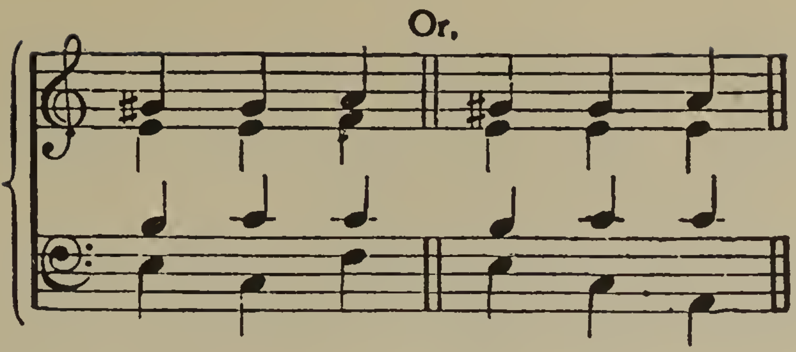
Each triad has its own function. The tonic is the central point to which it is necessary to return. The supertonic is a weak minor triad and is especially useful in leading up to the strong dominant. The mediant occupies a position of its own. Going up a fourth, the next chord to it would be the sub-mediant. Now, minor triads are weaker than major, and the result of using minor triads one after the other is to create a vague indeterminate effect. This effect was far more common in the old Church music where the strong divisions into phrases were absent. The mediant, therefore, gives us a feeling of old Church music. The sub-dominant is a strong major chord and, on account of the semitone which leads up to the sub-dominant tone, is apt to convey the impression that it is the central point. It is, therefore, dangerous to make the sub-dominant the final chord in a cadence of any kind. The dominant serves the purpose of leading up to the tonic, and also, on account of its strong character, is useful as a point on which to pause. The sub-mediant serves the purpose of an understudy to the tonic, and is extremely useful when it is wished to avoid a cadence.

There are certain differences in the minor mode on account of the different nature of the triads. The supertonic is, as we have seen, a diminished triad. Now the tendency of a diminished interval is to contract. The fifth will, therefore, generally fall and not rise. Moreover, the effect of dissonances is made softer by preparing the dissonant sound. By preparation is meant sounding the dissonant note in the chord before in the same part. The following will, therefore, be the best way of treating the supertonic in the minor key.



Here the dissonant F is prepared in the first chord and falls a second to the final chord.

The triad on the mediant is made up of two major thirds—a very dissonant combination. It will be necessary to prepare the dissonant fifth, and, as this note is the leading note, it will rise to the tonic.

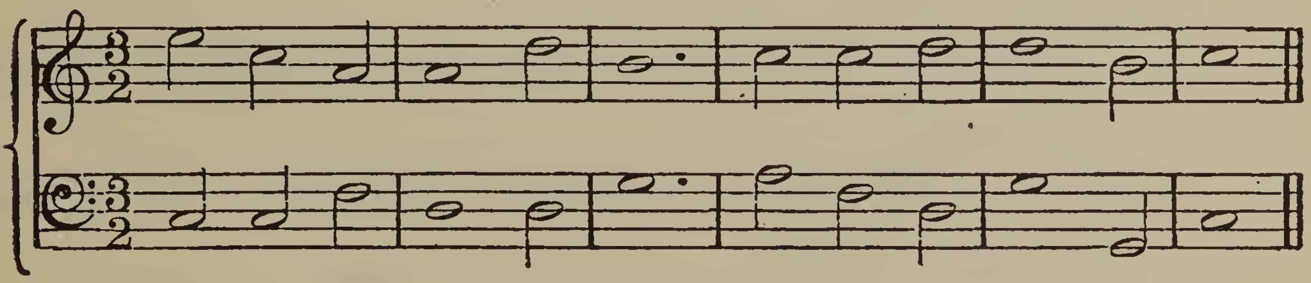


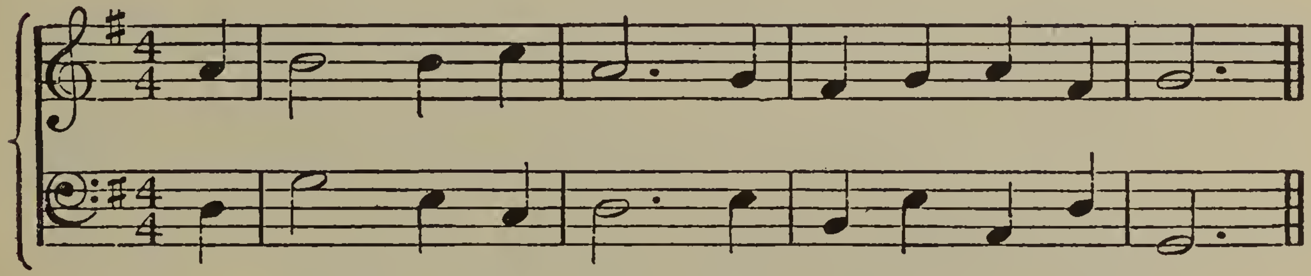
The sub-dominant is a minor triad and is approached from below by a whole tone and not by a semitone. There is, therefore, no danger of its appearing as the real key-centre. The dominant is extremely useful as a resting-place, for, being major, it contrasts with the more indefinite minor tonic.

The student can now practise putting chords together.

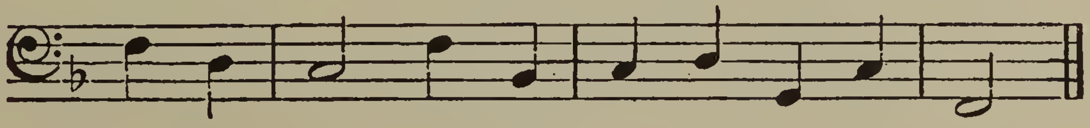
All through this work he must notice how the time and the tone elements work together. Pauses must be made on accented beats; and in particular the final chord should always come on the strongest beat. At first phrases of equal lengths should be written and phrases of two or four bars used before three-bar phrases are touched. The following exercises are given for voices.

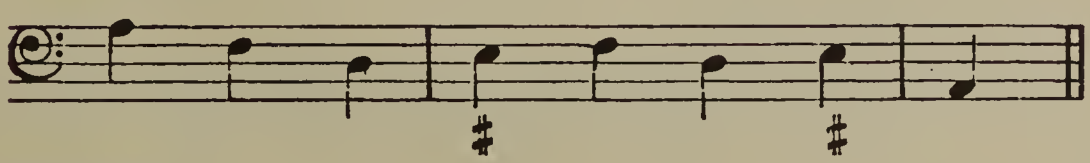
Add two middle parts to the following, and over each chord write its name, also mark and describe the cadences.



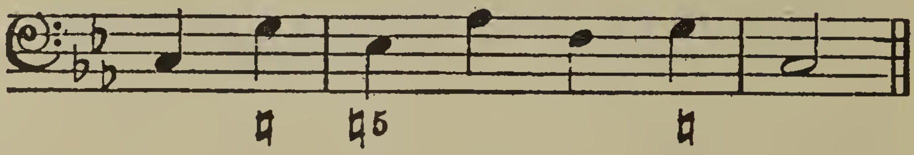


To the following add treble, alto, and tenor parts.





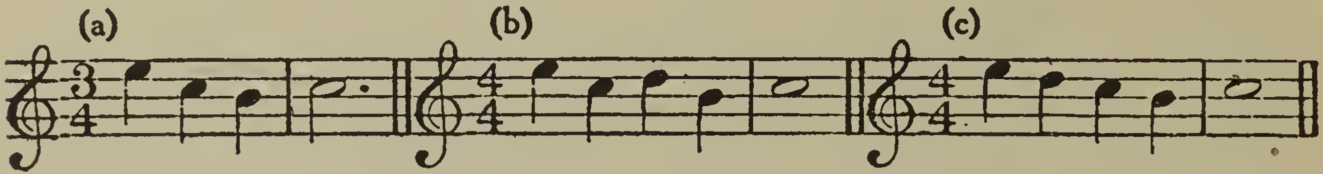
N.B.—A sharp under a bass note means that the *third* of the chord must be sharpened; a natural that the third must be made natural. An accidental placed beside a figure refers to the note indicated by the figure.



After these exercises have been correctly written they should be transposed into other keys and played.

It will also be useful to add parts below the treble, using only common chords. This will be easy when the progressions of common chords are understood.

Exercise.—Write parts below the given treble parts, using only common chords.



Transpose and play these exercises in other keys.

In the key of D major play and write the following chords in good positions after each other :—

1. Tonic, sub-dominant, supertonic, dominant, tonic.
2. Tonic, dominant, sub-mediant, sub-dominant, dominant, tonic.
3. Tonic, dominant, mediant, sub-mediant, supertonic, dominant, tonic.

Transpose and play them in all major keys.

In the key of A minor play and write the following chords in good positions :—

1. Tonic, sub-dominant, supertonic, dominant, tonic.
2. Tonic, dominant, sub-mediant, sub-dominant, dominant, tonic.

Transpose and play them in all minor keys.

In writing successions of chords, it is necessary for the student to remember that the final tonic chord should always come on a strong beat. The exercises may be written in any time, and chords may be repeated so as to get the accent always in the right place.

In addition to these exercises the student must write successions of chords in different keys, until he sees clearly the best progressions to use and the effect of each progression.

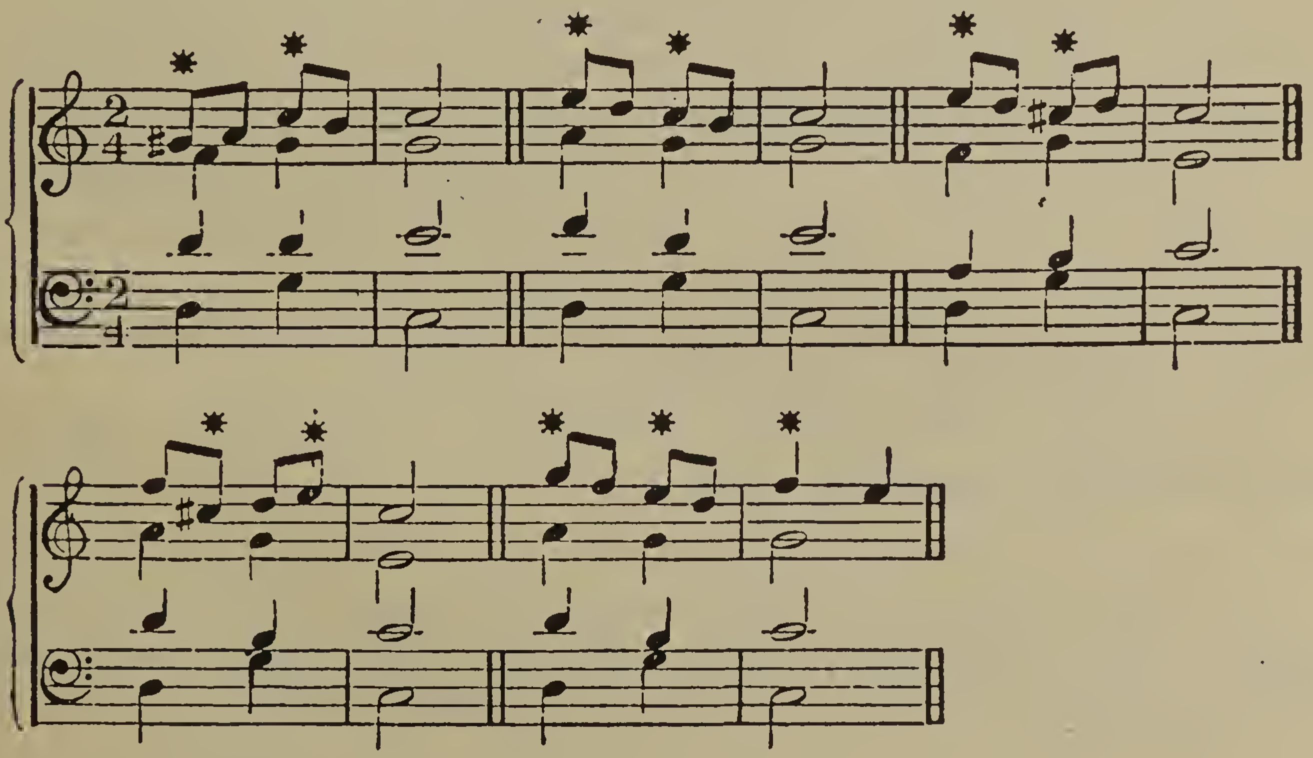
Moreover, he should be encouraged to write short original melodies, which should be phrased, and cadences should be inserted in the proper places. It is absolutely necessary to get a clear conception of simple phrasing from the very beginning. Moreover, original work should always be encouraged, for it is not so much by imitation as by making a pupil think out things for himself, that the best educational work is done.

Much time may be profitably spent on the earlier parts of harmony, for without a substantial foundation real progress would be impossible.

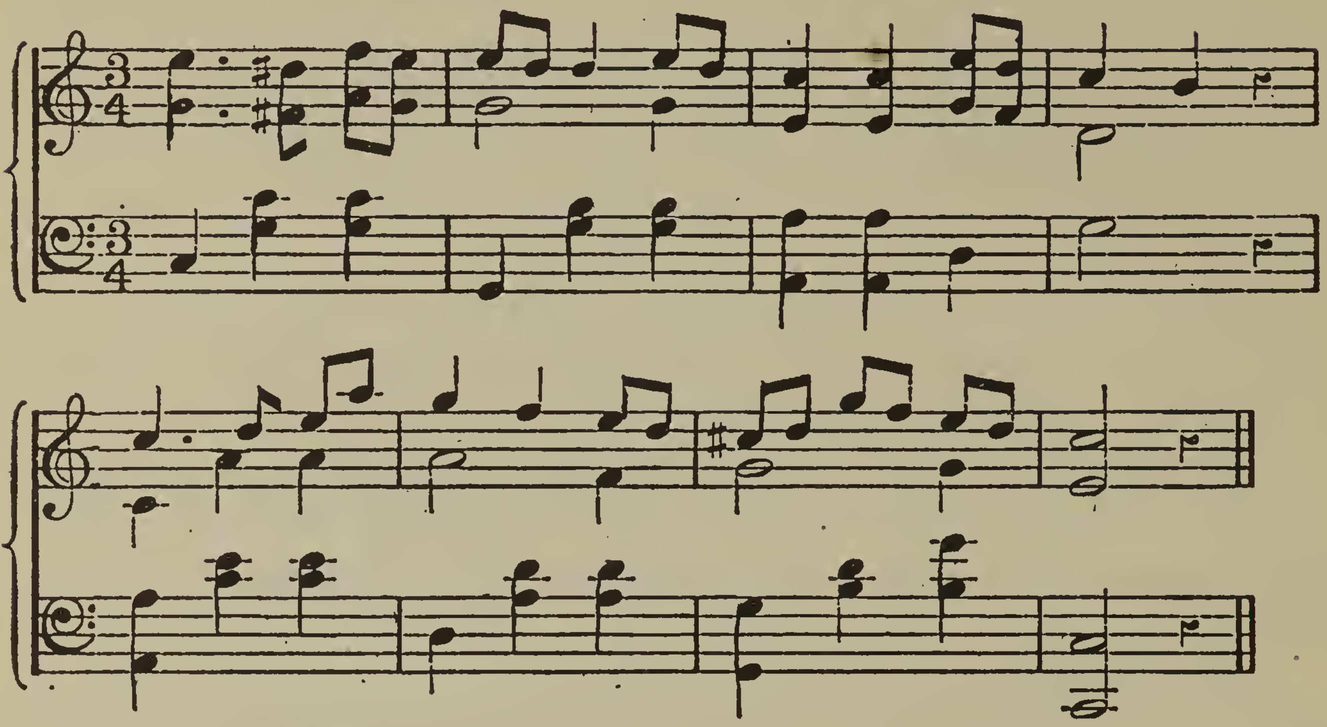
The teacher should collect many melodies of different kinds for the pupil to phrase and insert cadences. Suitable melodies will be found in the book on Ear-training and Sight-Singing.

At this point the teacher should study the use of unessential notes, as explained in Chapter V., and should show the pupils how the effect of chords may be varied by the introduction of notes that do not 'count' in the harmony. Then the pupils should play and write cadences and successions of chords with the addition of unessential notes. By this means they may see how little melodies can be built up on the simplest chords. Examples are given at the end of this chapter. The important thing to aim at is for the pupil to obtain some musical *meaning* in his work; something that sounds like a tune.

Examples of the chords given on page 30 varied by the addition of unessential notes:—



Example of how to construct a composition on a succession of common chords.



Chords used :—Tonic, dominant, sub-mediant, supertonic, dominant, sub-mediant, supertonic, dominant, tonic.

Additional Exercises.

In these exercises the student should first write out the chords in any time and in any key, but always in two phrases, with the last chord in each phrase on an accented beat. Then he should endeavour, with the aid of unessential notes, to build up some sort of a composition on them. Any chord may be repeated, but the first chord in every bar should be a new one. If, however, the composition is in a fast tempo, chords may be repeated through several bars.[1]

(1) First phrase: Tonic, sub-dominant, supertonic, dominant. Second phrase: sub-mediant, supertonic, dominant, tonic.

(2) Tonic, dominant, sub-mediant, supertonic, dominant, tonic, sub-dominant, supertonic, dominant, tonic.

(3) Tonic, sub-mediant, supertonic, dominant, tonic, sub-dominant, dominant, tonic.

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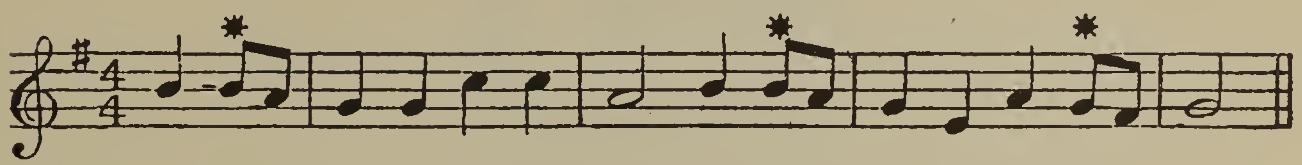
[1] In these exercises the first phrase should end on the dominant chord. With young children it will be sufficient at first to add unessential notes to some of the chords, so as to make very simple melodies.

(4) Tonic, dominant, mediant, sub-mediant, supertonic, dominant, mediant, sub-mediant, sub-dominant, supertonic, dominant, tonic.

(5) In a minor key: Tonic, sub-mediant, sub-dominant, dominant, sub-mediant, sub-dominant, dominant, tonic.

Harmonise the following melodies.[1] Unessential notes are marked with an asterisk.



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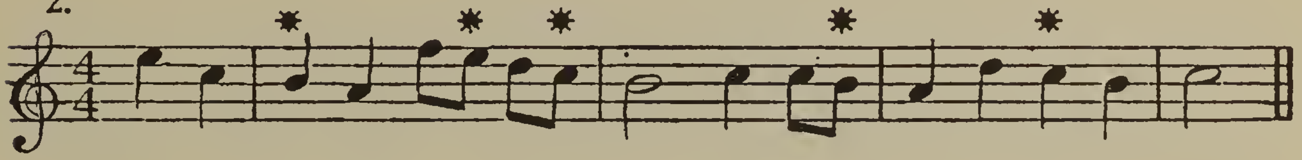

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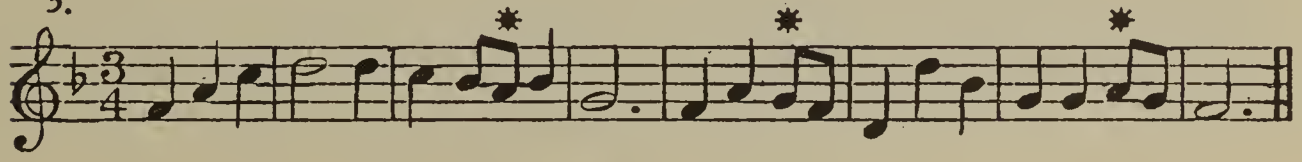

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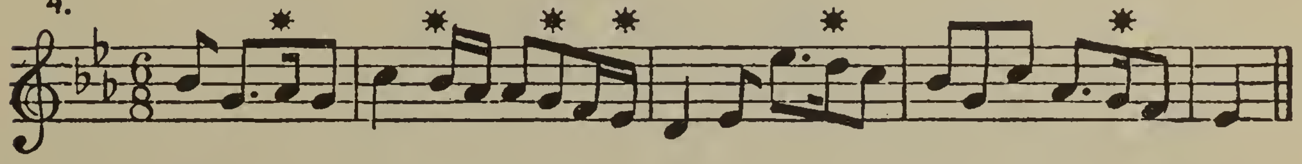

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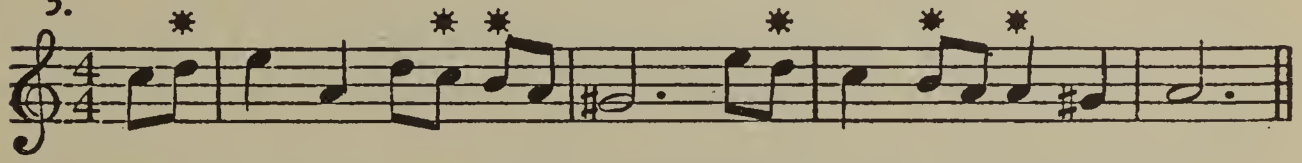

Write original melodies and insert chords for the cadences.

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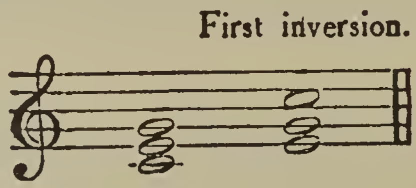
[1] Students should always begin by inserting the cadence chords and afterwards adding the other harmonies.

CHAPTER III.

Inversions.

First Inversion.

A chord, having as its bass any note belonging to it but not the root, is called an inversion. Thus the chord of C major is C, E, G, with C as the bass. But if E is placed in the bass, the chord is now used in its first inversion.

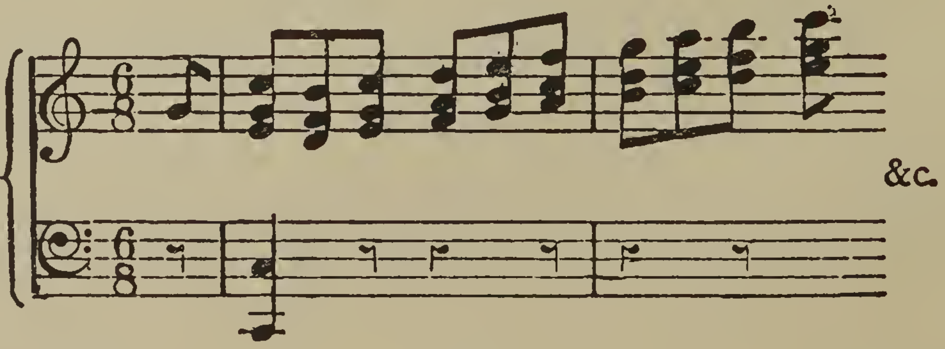


The first inversion is a weaker form of the common chord. As there is a *third* above the lowest note, there will be no dissonant effect, but as the root is not in the bass, a first inversion cannot be used as a final chord, as it will not give the same feeling of repose as a common chord in its original position.

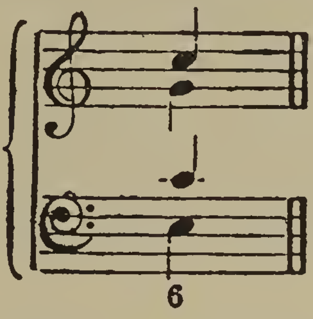
It has been noticed before (cf. page 14) that the most consonant intervals are thirds and sixths. Parts may freely move in similar motion in either of these intervals, and the effect is pleasing to the ear.

On this account, while a succession of common chords is impossible, a succession of first inversions is quite common.

The last movement of Beethoven's Sonata in C Op. 2 No. 3 begins as follows :—

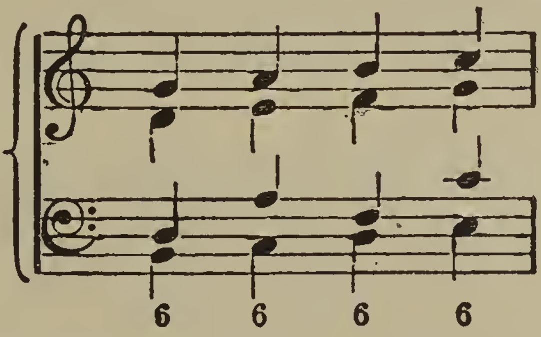


A first inversion is called a chord of the sixth, on account of the interval of a sixth between the bass and another part. It is distinguished from a common chord, when the bass alone is given, by having the figure 6 or $^6_3$ placed under the bass, thus :—



The best note to double is the sixth because it is the *root* of the chord, but if the sixth is the leading note, it is necessary to double one of the other notes.

When a succession of chords of the sixth is written, the treble should move in sixths with the bass, and one of the other parts, generally the alto, in thirds with the bass, while the remaining part, in vocal writing, doubles the root and one of the other parts alternately.

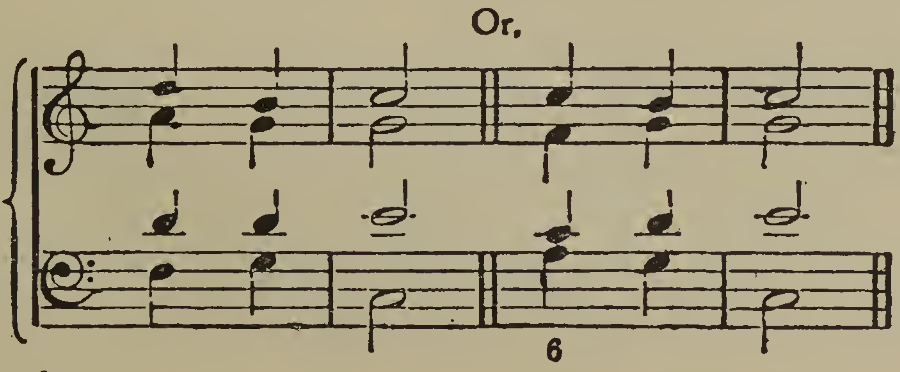


In writing for the piano, it is best to use only three parts.

Exercises.—In the keys of D, F, A flat major, G and C sharp minor, write first inversions of the tonic, sub-dominant, and leading-note chords, doubling the best notes.

Play first inversions of these chords in every key.

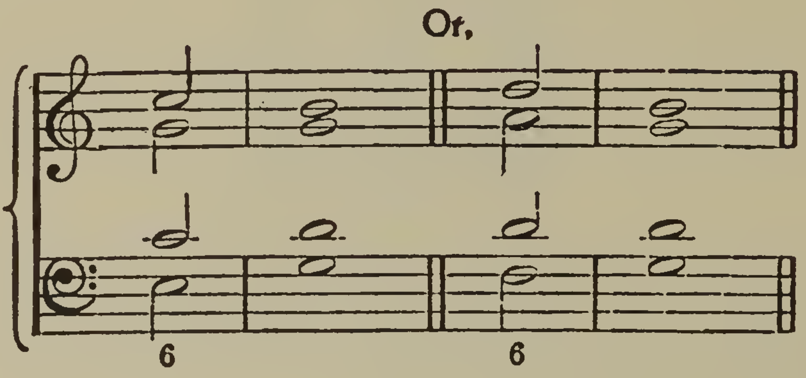
Play perfect cadences in all keys, using the first inversion of the supertonic before the dominant, also using the first inversion of the sub-dominant before the dominant.



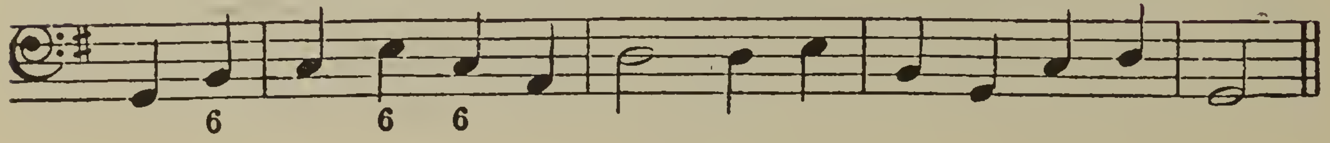
The imperfect cadence is frequently used, with an inversion of the tonic or of the supertonic before the dominant.

Exercise.—Write and play imperfect cadences as given below, using before the dominant the first inversion of the tonic chord, or the first inversion of the supertonic.

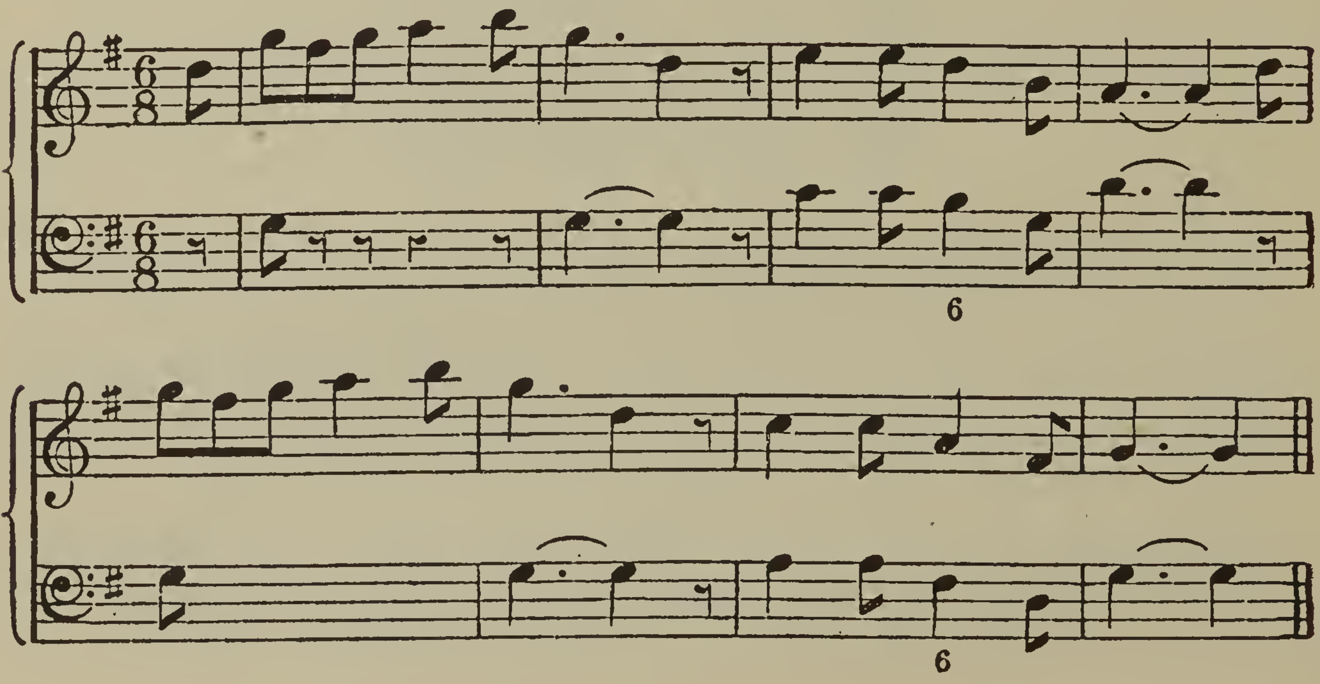
Example :—



Add three parts for voices above the given bass.



Harmonise the following for the piano, using chords of the sixth where no note in the bass is given.



The effect of a first inversion is that of a weaker form of a common chord. First inversions may therefore be used freely instead of common chords, except for the final chord of a piece. And, as a first inversion is weaker than a common chord, it may be used in cases where a common chord would not be good, e.g. tonic followed by first inversion supertonic.

The diminished triads in both major and minor modes may be used in their first inversions, because the pleasing effect of the sixth and third above the bass note removes the feeling of dissonance. The first inversion of the diminished triad on the leading note can be used wherever dominant harmony is good, except of course in the imperfect cadence, for a pause on an inversion cannot be as satisfactory as a pause on a common chord. Successions of first inversions are good, as we have already seen.

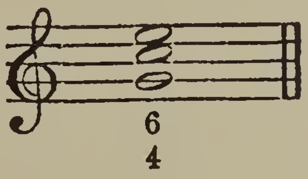
Exercise.—Write and play successions of chords and first inversions in different keys.

Write and play the following in the key of A major and transpose it to other keys:—Tonic, first inversion tonic, sub-dominant, first inversion supertonic, dominant, sub-mediant, first inversion sub-dominant, first inversion dominant, tonic, sub-mediant, first inversion supertonic, dominant, tonic.

Write and play the following in E minor and transpose to other minor keys:—Tonic, first inversion leading-note chord, first inversion tonic, sub-dominant, first inversion tonic, dominant, sub-mediant, sub-dominant, first inversion supertonic, dominant, tonic.

Second Inversions.

The second inversion of a common chord has the fifth in the bass and is figured $^6_4$.

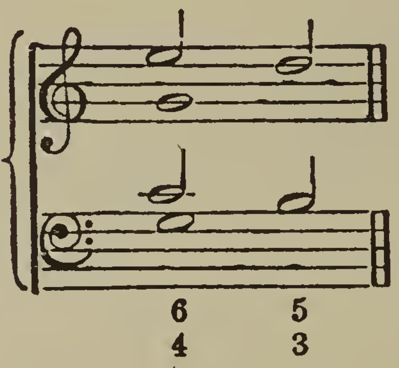


It has been noticed that in harmony, chords are built up from the bass, beginning with a major or minor third.

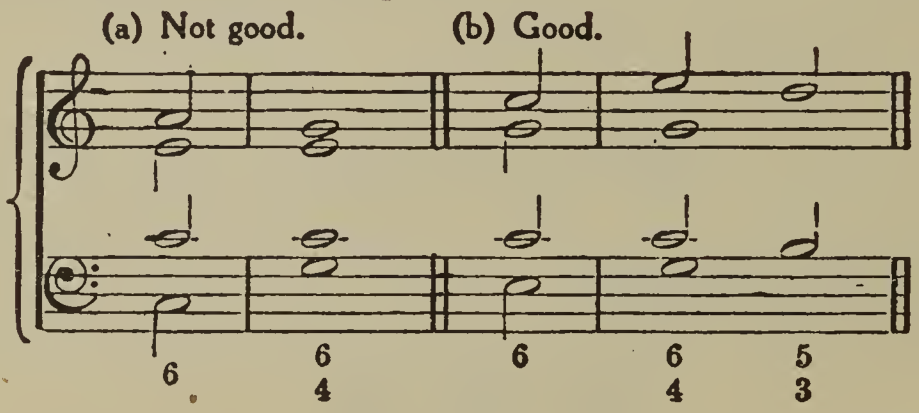
In the second inversion of a common chord, the nearest note to the bass is a fourth. The ear, therefore, regards this fourth as a dissonance, and requires it to fall to the note below, according to the law of dissonances, which is, that the dissonant note has the tendency to fall. As this is the case, it is obvious that this inversion cannot be used freely, but must be introduced when a dissonant effect is needed, or when the chord is only a passing chord leading on to another on the next degree, or when it is felt to be a repetition of a common chord.

There are four principal ways of using this inversion, to which certain names are given.

1. *The Cadential* $^{6}_{4}$. The bass note is the dominant, or more rarely the tonic; the chord is struck on an accented beat and is followed by another chord having as its root the bass of the $^{6}_{4}$ chord. The two chords usually appear as given below, the second chord being figured $^{5}_{3}$ and the 6 and 4 descending to the notes below them.

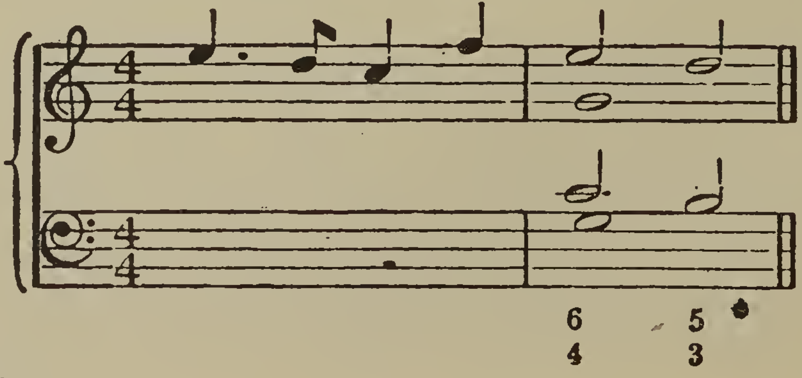


In the $^{6}_{4}$ chord the bass should always be doubled. This $^{6}_{4}$ should not be approached by skip from an inversion, except from the first inversion of the tonic.



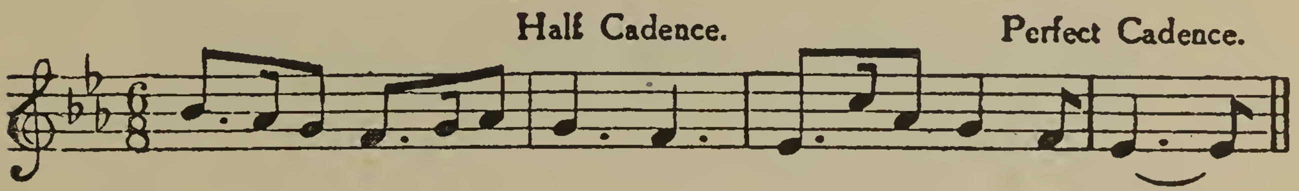
In (a) the $^{6}_{4}$ is approached from the first inversion of the sub-mediant: in (b) from the first inversion of the tonic.

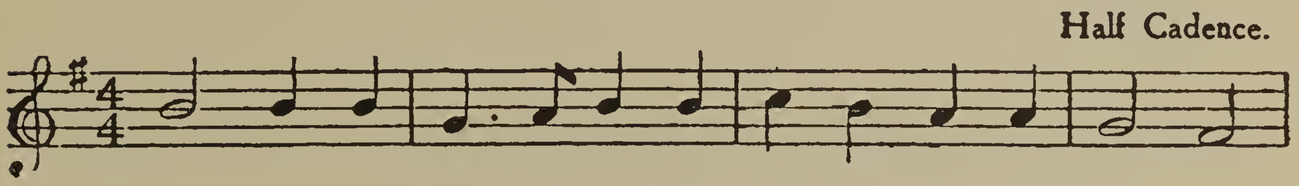
The cadential $^{6}_{4}$ is very often used in the half-cadence—that is to say, before the dominant chord; the $^{6}_{4}$ occurs on the strong beat, as in the following portion of a melody:—

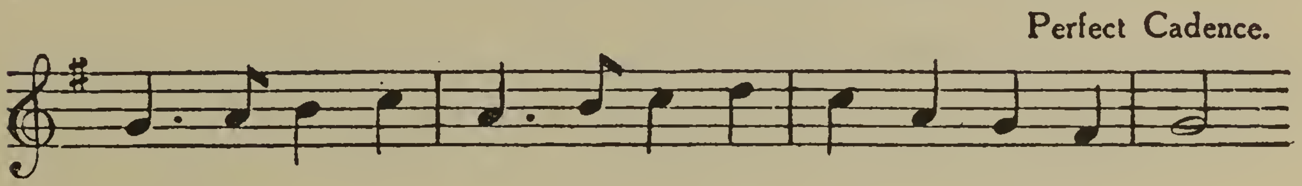


It is also very useful in the perfect cadence before the dominant.[1]

Exercise.—Insert cadences in the following melodies, using the cadential $^{6\,5}_{4\,3}$ for the half-cadence and in the perfect cadence.

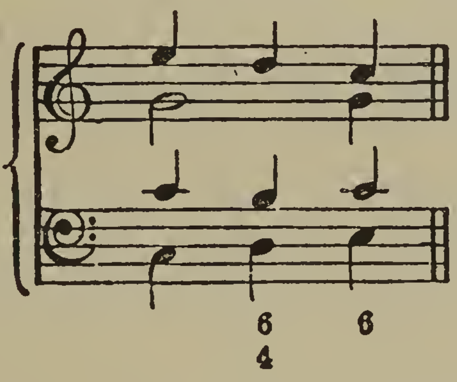






Play cadential $^6_4$ chords followed by $^5_3$ in all keys.

2. *The Passing* $^6_4$. It is a well-known fact in music that many things, which otherwise would sound wrong, can be done when the bass moves by step of a second up or down. A skip calls attention to a chord, but motion in what is called conjunct degrees—that is, to the next note, is in itself pleasant, and serves to disguise any objectionable features in the harmony. The $^6_4$ chord may, therefore, be used when the bass is both approached and quitted by steps of seconds. This $^6_4$ need not come on an accented beat, but the bass is generally doubled. It usually occurs on the supertonic or dominant, but it can be used on other degrees of the scale.



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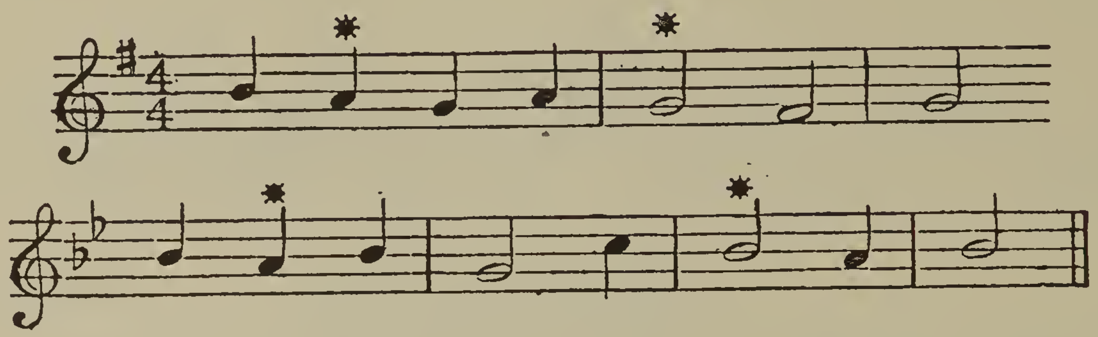
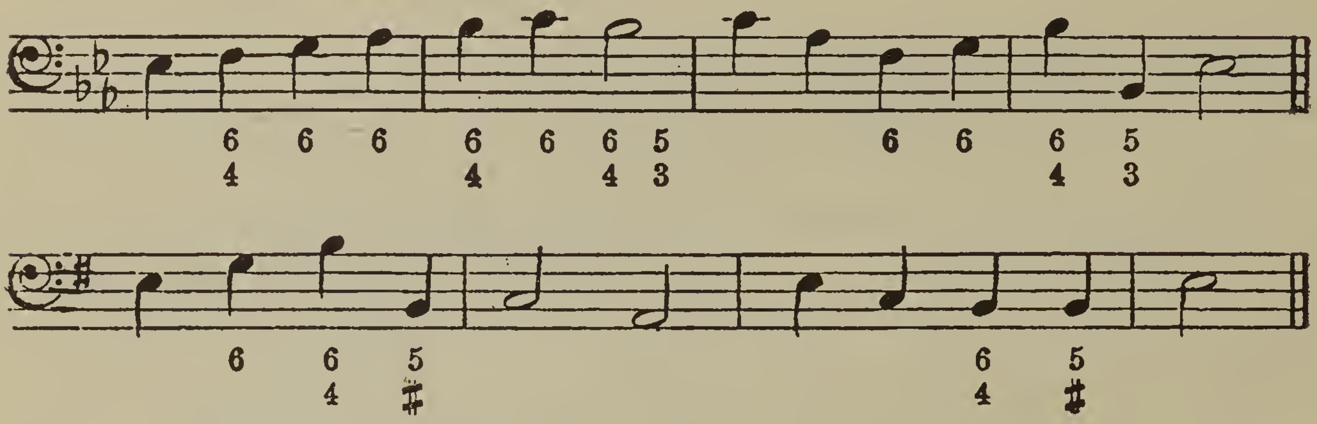
[1] The cadential $^6_4$ chord should be looked on as if the sixth and the fourth were unessential notes. When the next chord is the dominant, the $^6_4$ should be approached in exactly the same manner as the dominant.

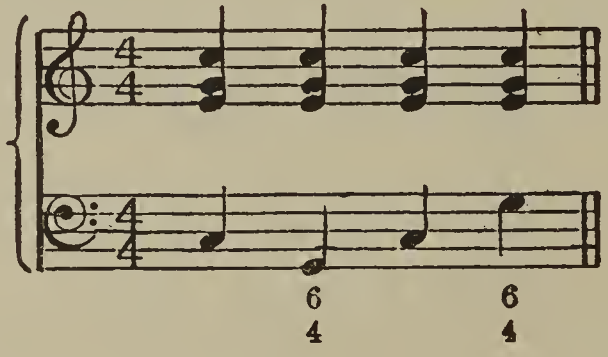
Exercise.—Write and play passing $^{6}_{4}$ chords on the model set in the above example in all keys. Harmonise the following, using passing and cadential $^{6}_{4}$ chords where an asterisk is placed.



Fill up for voices the following basses.



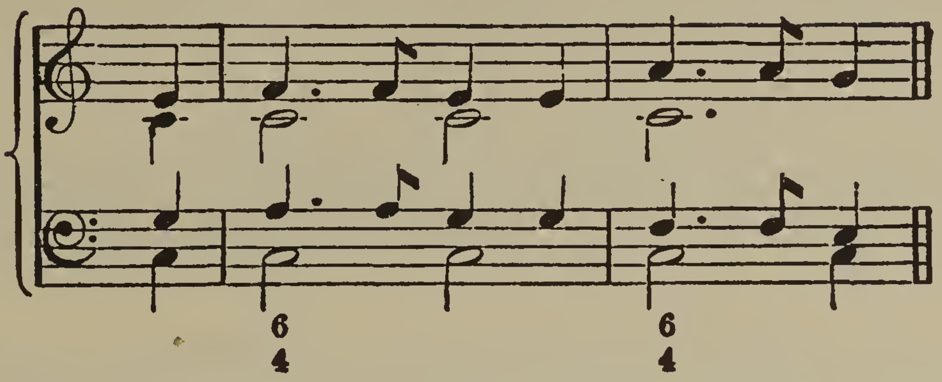
3. *The Arpeggio* $^{6}_{4}$.—When a second inversion is used immediately after another position of the same chord, the dissonant effect of the fourth will not appear, for the ear will retain the feeling of the chord in its consonant position. The second inversion may, therefore, be used after any other position of the same chord.



This is called the arpeggio $^{6}_{4}$ because the bass repeats the notes of a chord while the other parts remain.

4. *The Pedal* $^{6}_{4}$.—In this case the bass may repeat or hold on a note generally tonic or dominant, while the other parts

move. The $\frac{6}{4}$ may appear on any beat, and the bass note is called a ‘pedal.’



The student should now find out $\frac{6}{4}$ chords in any music, and classify them under one of the heads given above.

Exercise.—Fill up the following unfigured basses, choosing the best chords and putting in cadences in the proper places. Figure the basses and note the effect of the progressions.

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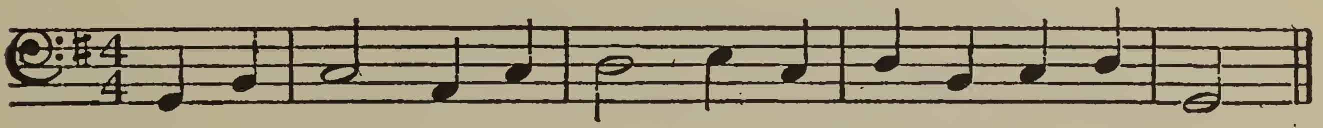

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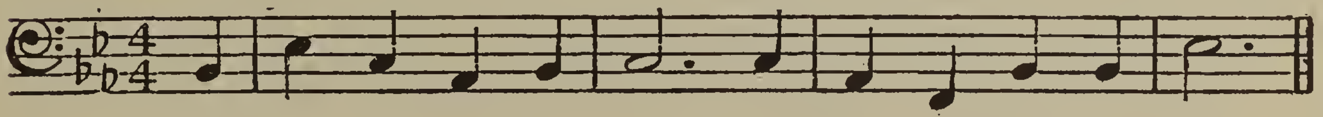

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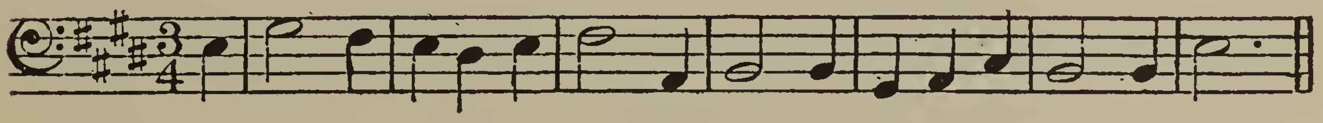

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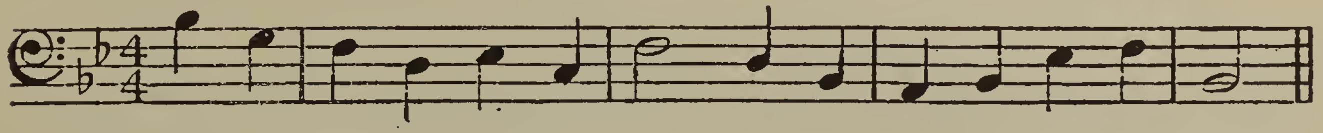

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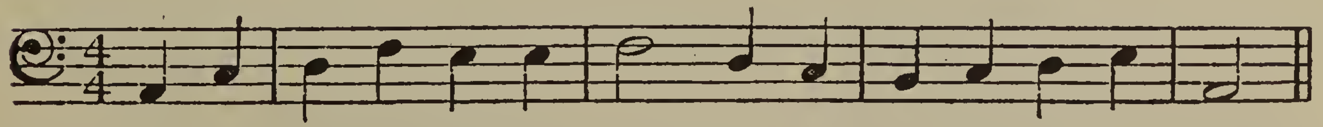

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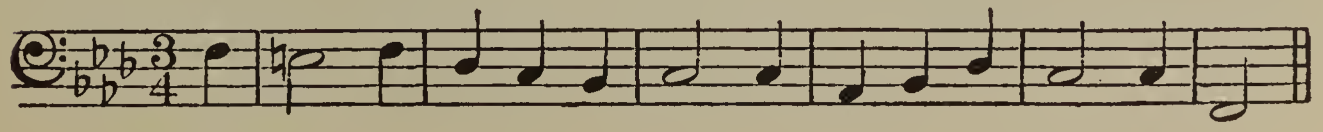
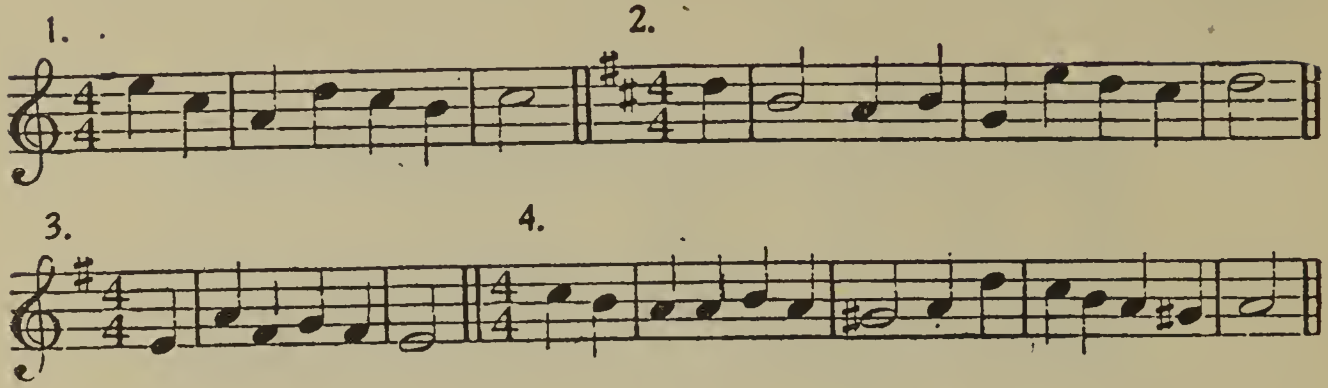
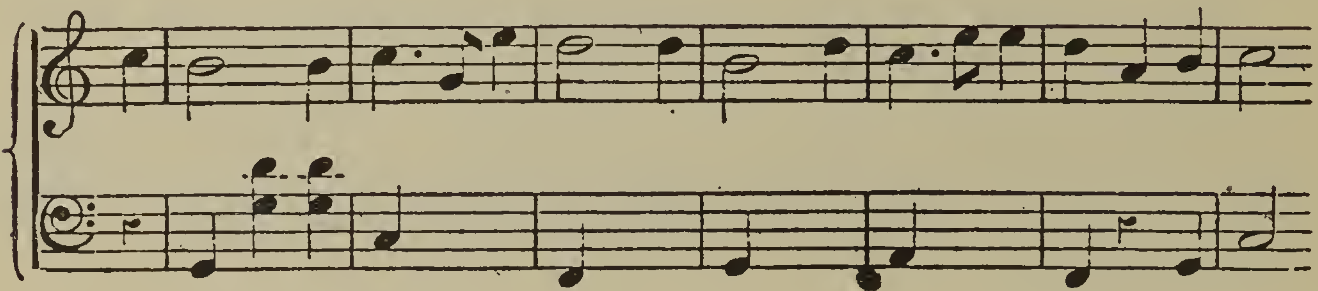


Harmonise the following melodies :—



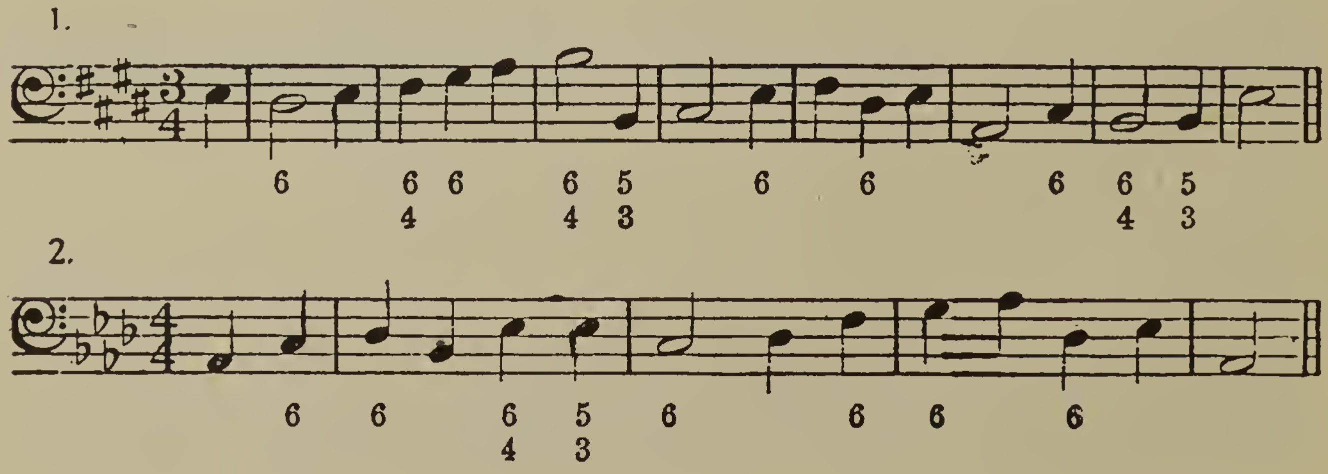
Fill in for piano the chords in the following, as in the first bar :—



In the key of C major play and write the following chords in good positions :—Tonic, first inversion tonic, sub-dominant, first inversion sub-dominant, second inversion tonic, dominant, sub-mediant, supertonic, first inversion tonic, first inversion supertonic, second inversion tonic, dominant, tonic. Transpose and play them in all major keys.

In the key of A minor write and play the following chords in good positions :—Tonic, first inversion dominant, tonic, first inversion sub-dominant, second inversion tonic, dominant, sub-mediant, sub-dominant, first inversion supertonic, second inversion tonic, dominant, tonic.

Add three parts above the following figured basses :—



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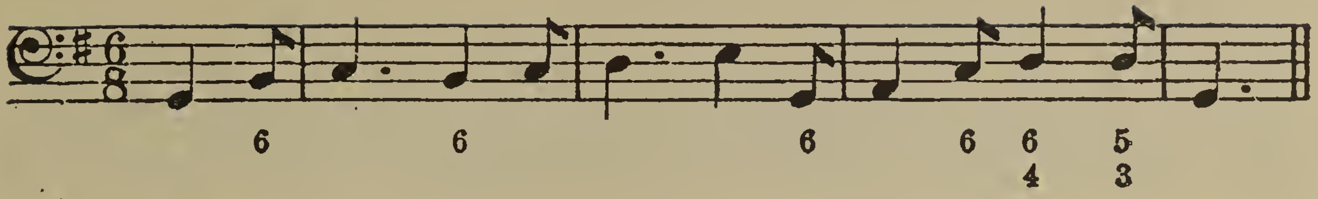

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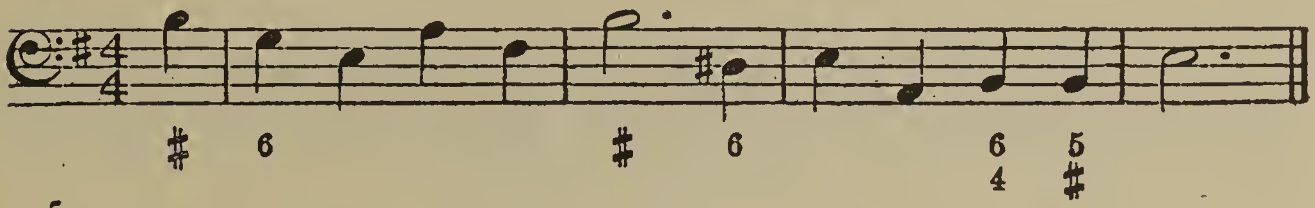

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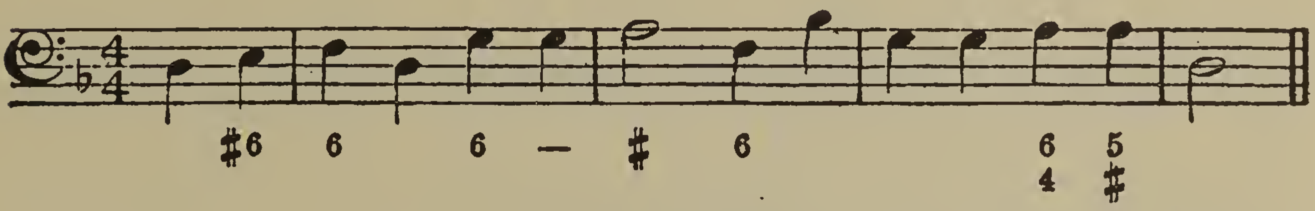


Write and play successions of common chords with their first and second inversions.

Additional Exercises.

Write compositions as before, with the use of unessential notes, on the following chords. Care must be taken that the cadential $^6_4$ chord bears more feeling of accent than the next chord.

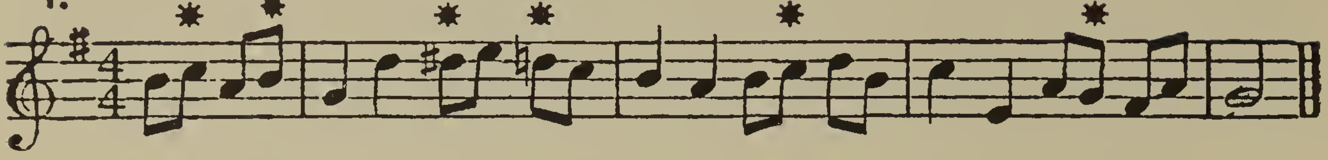
(1) First phrase: Tonic, first inversion tonic, sub-dominant, supertonic, first inversion supertonic, dominant. Second phrase: First inversion tonic, sub-mediant, sub-dominant, first inversion supertonic, dominant, tonic.

(2) Tonic, second inversion dominant, first inversion tonic, sub-dominant, first inversion sub-dominant, second inversion tonic, dominant, sub-mediant, sub-dominant, supertonic, first inversion supertonic, second inversion tonic, dominant, tonic.

(3) In a minor key: tonic, sub-dominant, first inversion tonic, first inversion supertonic, second inversion tonic, dominant, sub-mediant, first inversion tonic, sub-dominant, second inversion tonic, dominant, tonic.

Harmonise the given melodies.

1.



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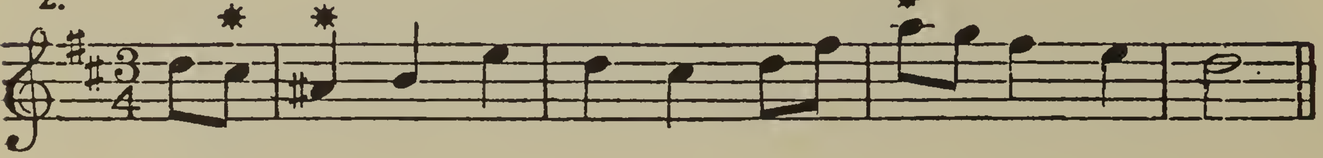

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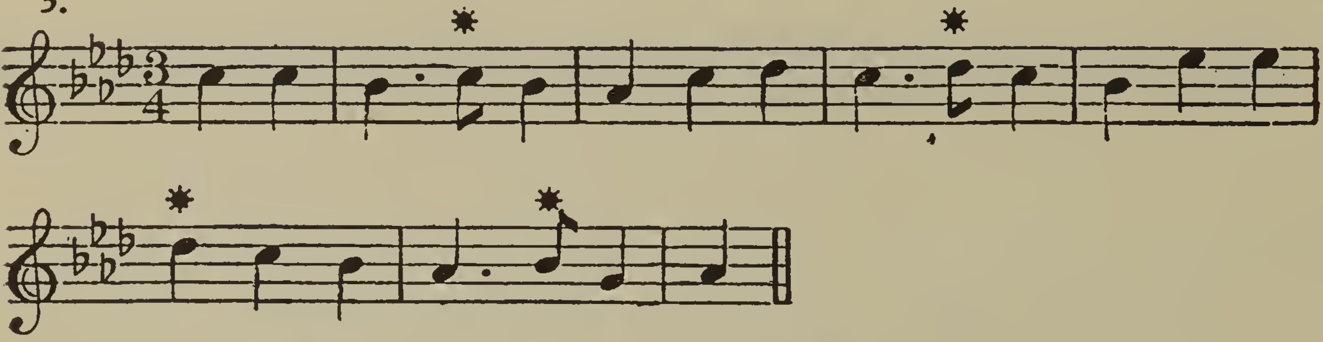

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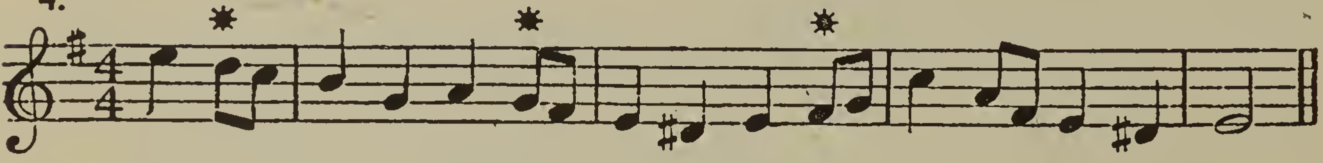
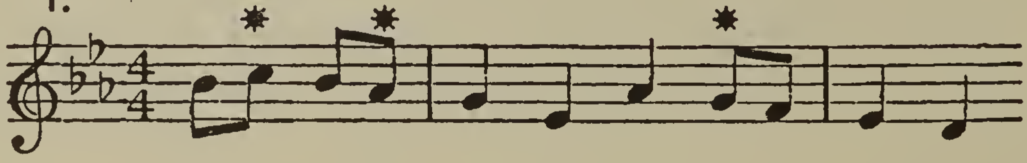


Harmonise the following and complete by adding a corresponding phrase.

1.



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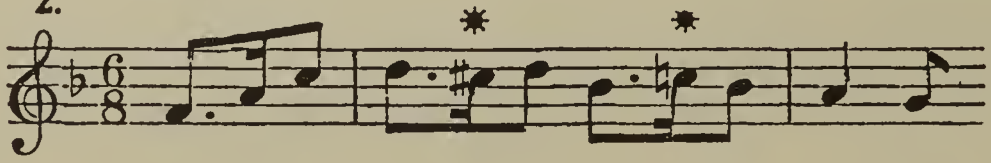

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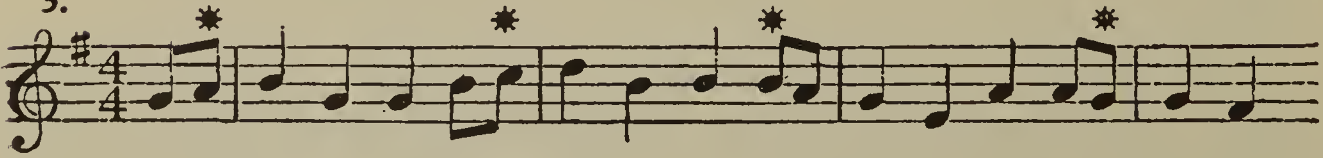

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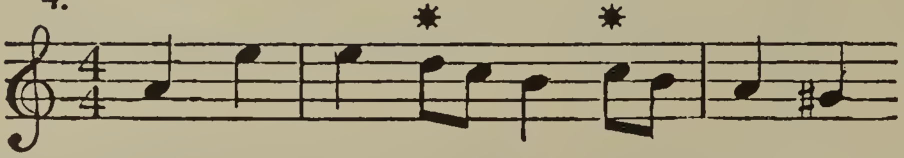
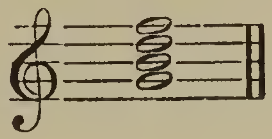


CHAPTER IV.

The Dominant Seventh.

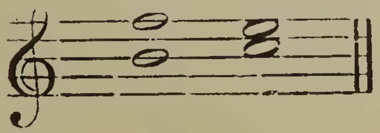
The chord of the dominant seventh is made by adding a minor third above the dominant common chord.

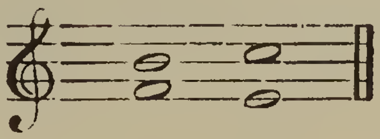


It will be seen that the chord consists of a succession of thirds in this order—major third, minor third, minor third. It has been noticed that the most consonant form of a triad was when a major third came below a minor third: the addition of another minor third above the triad causes a dissonance, but one of a very mild character.

Counting from the lowest note, the intervals are major third, perfect fifth, and minor seventh. The chord is figured 7.

The importance of the dominant seventh may be seen from the fact that its third and seventh make the interval of a diminished fifth, or an augmented fourth. Now the tendency of every diminished interval is to contract, and of an augmented interval to expand. Therefore, in the case of the dominant seventh in the key of C, the B will have the tendency to rise to C and the F to fall to E.

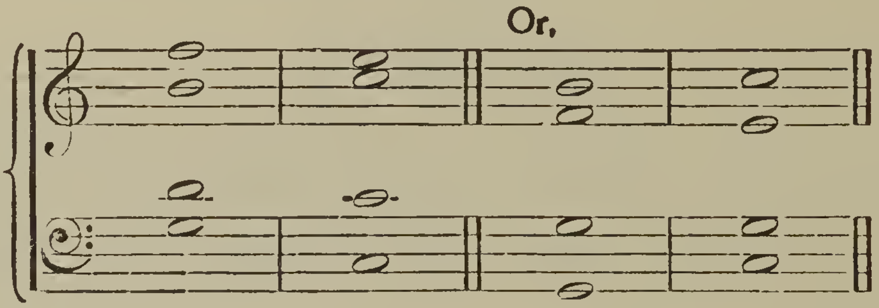




Moreover, the interval from G to F, a seventh, is a dissonant interval, and every dissonance has the tendency to fall. Again, one of the best progressions is for the root of a chord to ascend a fourth or descend a fifth. The root G will, therefore, naturally proceed to C, and thus three notes in the chord will tend to go to the tonic, and to the third of the tonic. Finally, the tones in the chord can only come as diatonic tones, in one key or its tonic minor, so that it will be apparent that the dominant seventh is a most useful chord in establishing the key, for its strong tendency is to lead up to the tonic and thus give the feeling of the key.

The remaining note in the chord, the fifth from the bass, is free ; it usually, however, descends to the tonic.

It will thus be seen, that the normal resolution[1] of the dominant seventh is on to the tonic common chord, and it must be noticed that the fifth, in either the dominant seventh or the tonic chord, must be omitted.



The dominant seventh may, therefore, be used in the perfect cadence ; indeed, with the seventh in the dominant chord, the feeling of finality is strengthened.

Exercise.—Write and play perfect cadences in all keys, using the dominant seventh before the tonic.

Note.—It is necessary to play the dominant chord both with and without the seventh many times, until the ear can recognise the presence of the seventh.

The false or interrupted cadence is, as has been noticed, made up by following the dominant by some other chord than the tonic.

The chord generally used for this purpose is the submediant. Just as in the perfect cadence the dominant seventh may be used instead of the common chord, so in the false cadence the seventh may also be added.

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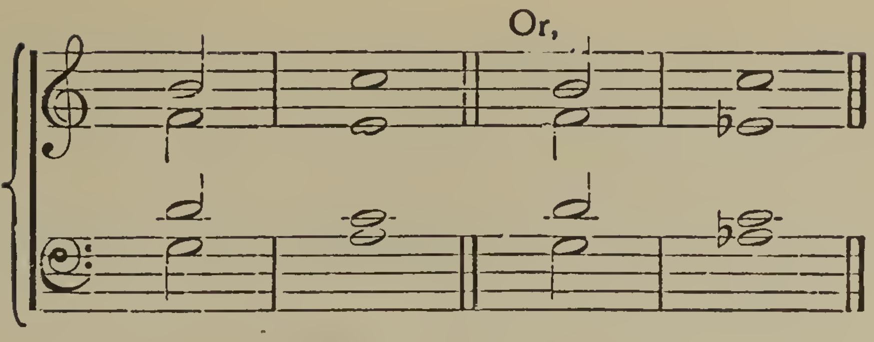
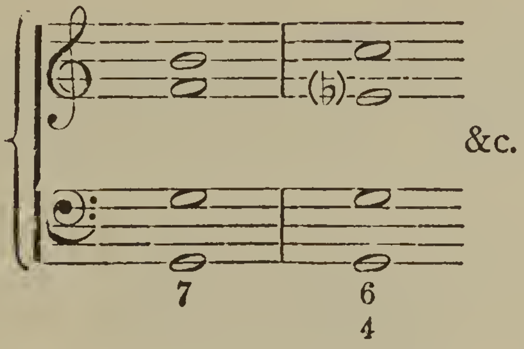
[1] By resolution is meant the following of a dissonant chord by another according to certain principles. A dissonance cannot stand by itself, conveying as it does a feeling of unrest, but must be succeeded by some other chord to get rid of the dissonant feeling.



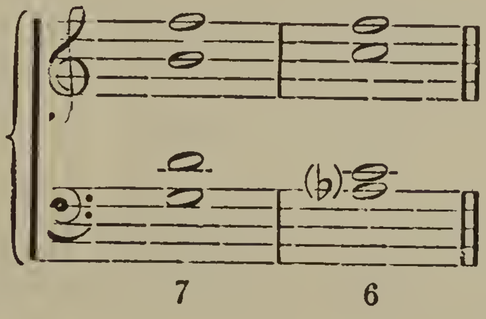
Exercise.—Write and play in all keys false cadences, using the dominant seventh before the sub-mediant.

Another way of resolving the dominant seventh is to follow it by the second inversion instead of the original position of the tonic.

In this case it is often best to double the root, and omit the fifth in the dominant seventh.



Finally, the dominant seventh may be followed by the first inversion of the sub-dominant common chord. In this case the seventh remains.



This resolution may be justified by the fact that the bass proceeds by step of a second. When this is the case progressions that would otherwise be bad are allowed (cf. page 43).

There are thus four resolutions to the dominant seventh.

1. On the tonic.
2. On the sub-mediant.
3. On the $^6_4$ on the dominant.

4. On the first inversion of the sub-dominant.

In the first three cases the seventh in the dominant falls a minor or major second: in the last case it remains. The third, being the leading-note, has the tendency to ascend to the tonic; it may, however, be treated freely, especially when it comes in a middle part.

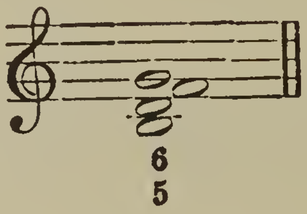
Exercise.—Play and write resolutions of the dominant seventh in different keys, using different positions in the upper parts.

The student must accustom his ear to distinguish the positions of the upper parts, and what resolution is given.

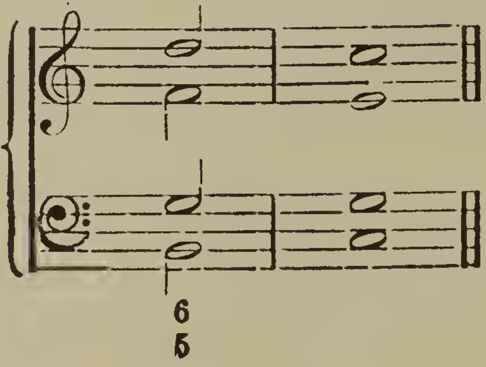
In the melodies given on page 46 the perfect cadences may be used with the dominant seventh.

Inversions of the Dominant Seventh.

The first inversion has the third in the bass and is figured $^6_5$ or $^6_{\substack{5\\3}}$

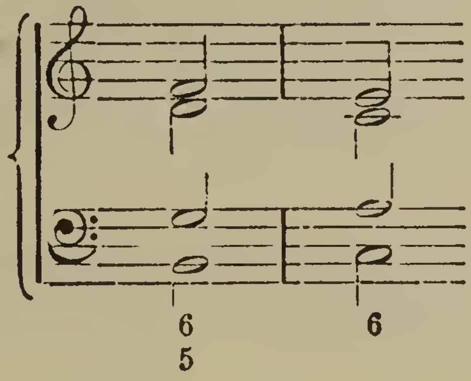


The bass is the leading-note, and therefore will rise to the tonic in the resolution. The original seventh, which now appears as a diminished fifth above the bass, will fall to the third of the tonic. This inversion of the dominant seventh will, therefore, resolve on the tonic common chord and may be used in the cadence; the effect, however, is not so satisfactory as when the original position of the dominant seventh resolves on the tonic.



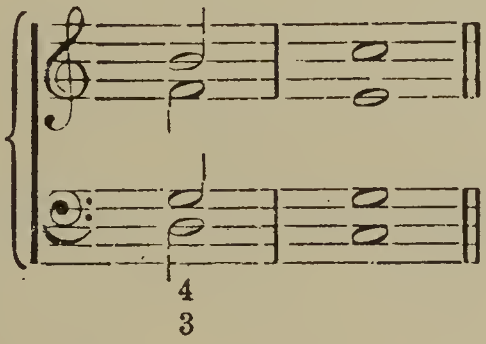
Exercise.—Write and play cadences in different keys, using the first inversion of the dominant seventh before the tonic.

Just as the dominant seventh can resolve on the sub-mediant common chord, so the first inversion of the dominant seventh can resolve on the first inversion of the sub-mediant common chord.

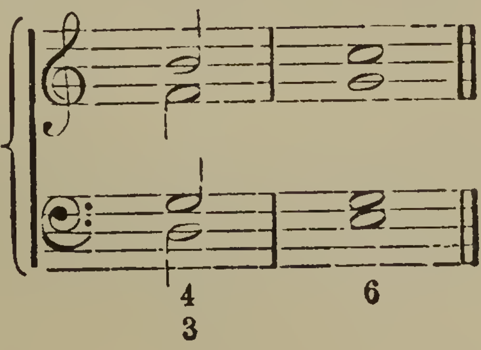


The second inversion of the dominant seventh has the fifth in the bass and is figured $\substack{4\\3}$ or $\substack{6\\4\\3}$.

The fifth is free, and may either move up or down in the resolution. When it moves down to the tonic, the whole chord resolves on the tonic, and may be used in cadences.



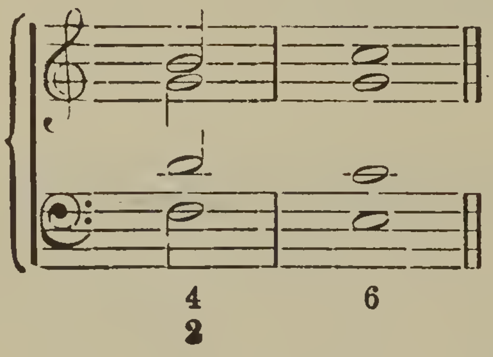
When the fifth rises, the chord of resolution becomes the first inversion of the tonic. In this case the original seventh is allowed to rise because the bass rises to the note on which the seventh generally resolves and forces the seventh *up*.

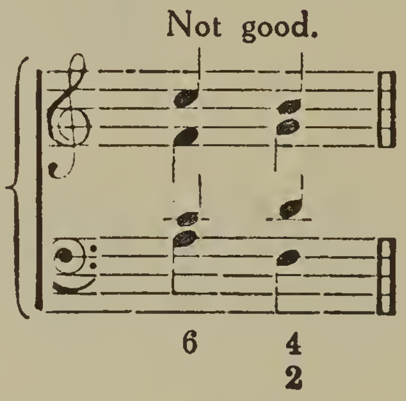


This constitutes an important exception to the general rule that every dissonance falls in its resolution.

Exercise.—Play and write the second inversion of the dominant seventh in different keys, following it by the tonic or the first inversion of the tonic.

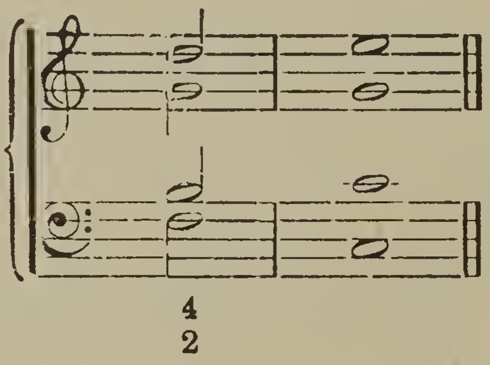
The last inversion of the dominant seventh has the seventh in the bass, and is figured $\begin{smallmatrix}4\\2\end{smallmatrix}$ or $\begin{smallmatrix}6\\4\\2\end{smallmatrix}$. As the seventh has the tendency to fall, the chord will resolve on the first inversion of the tonic. It is not good to skip *down* to a last inversion, though it may be approached by skip from below.





Exercise.—Play and write the last inversion of the dominant seventh in different keys, following it by the first inversion of the tonic.

It must be remembered that in vocal writing the progression of the various parts is much more strict than in piano music. Even, however, in vocal music in certain cases the ear is satisfied by hearing the chord of resolution, although the parts may not progress strictly according to rule. The following resolution of the last inversion is, therefore, quite possible.



Any position of the dominant seventh may be followed by any other position, and the rules of resolution follow the last position written.

The student must now learn to distinguish by ear the different positions of the dominant seventh and to follow their resolutions. They must, therefore, be played a great number of times, till the ear can hear them easily.

Exercises.—Add three parts above the following basses, the first of which are figured, the others unfigured. In harmonising the unfigured basses the student must decide when to write sevenths. It should be noticed that while the second inversion of a common chord can only be used with great care, in the manner prescribed on pages 42 and 43, the second inversion of a dominant seventh can be used freely.

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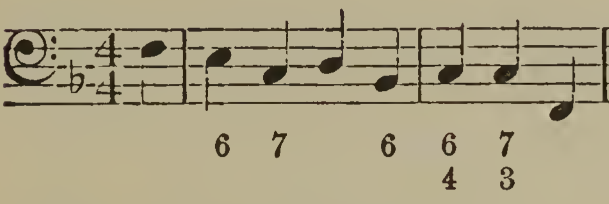

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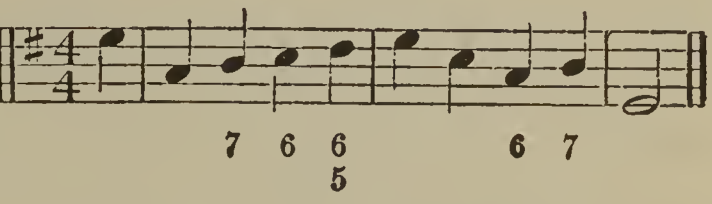

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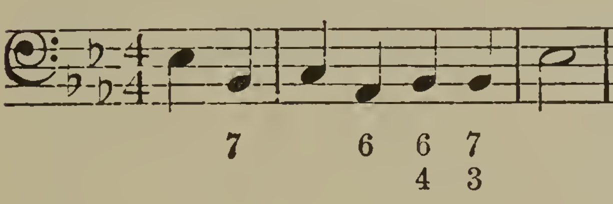

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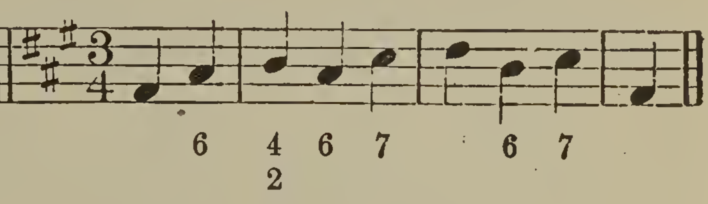

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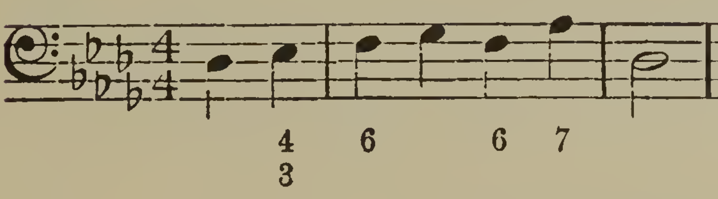

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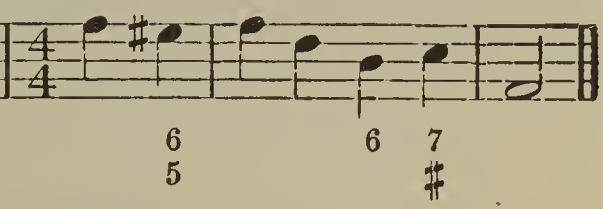

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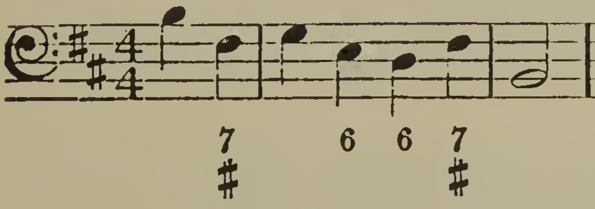

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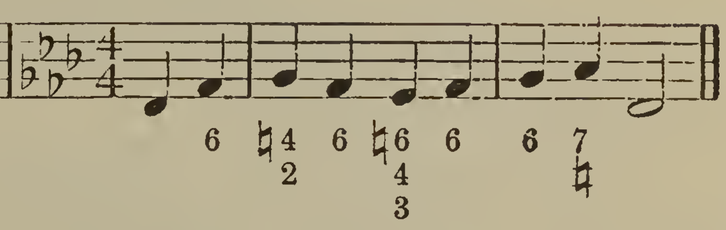

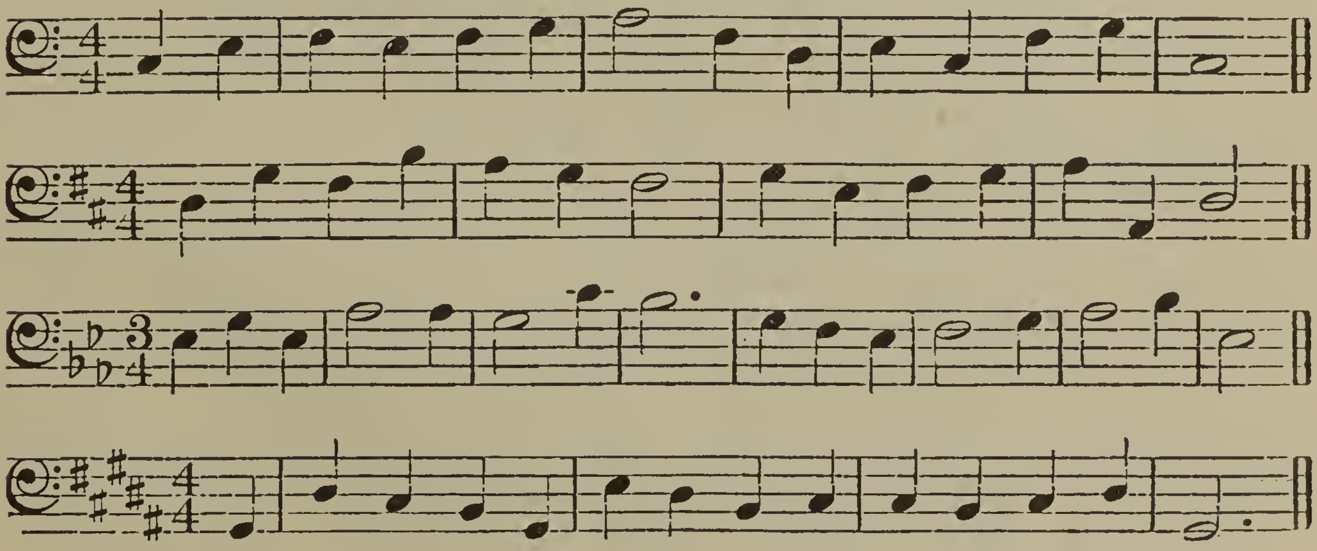

Harmonise the following melodies :—

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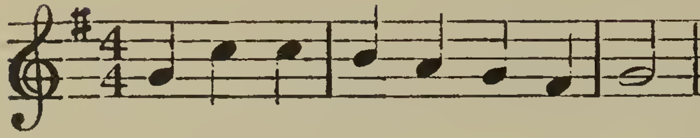

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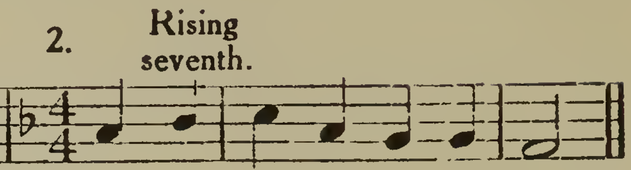

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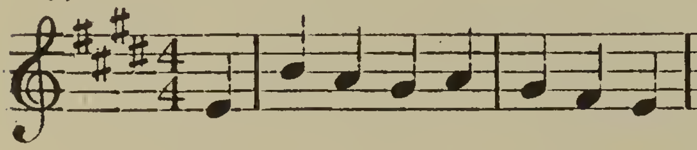

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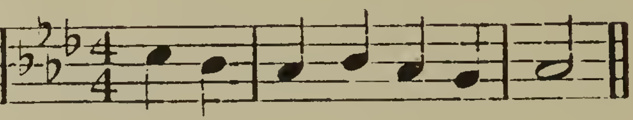

In the key of E major play and write the following successions of chords :—Tonic, last inversion dominant seventh, first inversion tonic, sub-dominant, supertonic, dominant seventh, sub-mediant, first inversion sub-mediant, second inversion dominant seventh, first inversion tonic, sub-dominant, second inversion tonic, dominant seventh, tonic.

In the key of G minor play and write the following chords :—Tonic, first inversion tonic, dominant, last inversion dominant seventh, first inversion tonic, sub-dominant, dominant seventh, sub-mediant, first inversion supertonic, second inversion tonic, dominant seventh, tonic.

Play and write successions of chords in different keys, introducing the dominant seventh and its inversions.

Additional Exercises.

Write compositions, in two phrases, on the following successions of chords :—

(1) First inversion dominant seventh, tonic, second inversion dominant seventh, first inversion tonic, sub-dominant, second inversion tonic, dominant ; last inversion dominant seventh, first inversion tonic, sub-mediant, first inversion supertonic, second inversion tonic, dominant seventh, tonic.

(2) Tonic, sub-mediant, first inversion supertonic, last inversion dominant seventh, first inversion tonic, sub-dominant, first inversion supertonic, second inversion tonic, dominant ; tonic, second inversion dominant seventh, first inversion tonic, tonic, sub-dominant, first inversion supertonic, second inversion tonic, dominant seventh, tonic.

(3) In a minor key : Tonic, dominant, last inversion

dominant seventh, first inversion tonic, first inversion supertonic, second inversion tonic, dominant ; first inversion tonic, second inversion dominant seventh, tonic, first inversion supertonic, second inversion tonic, dominant seventh, tonic.

Harmonise the following melodies :—

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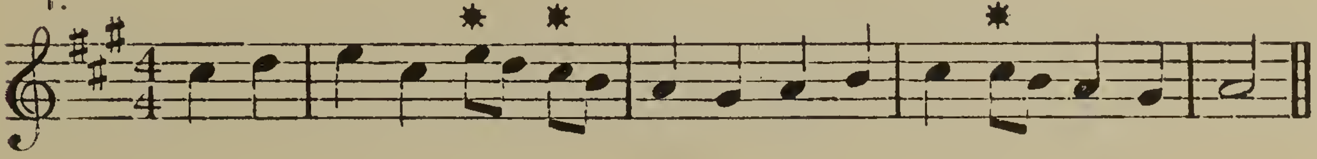

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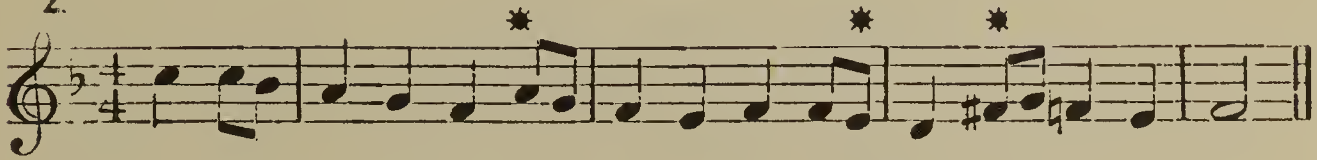

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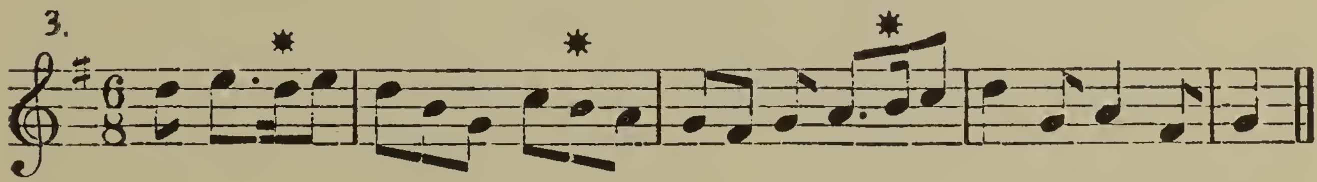

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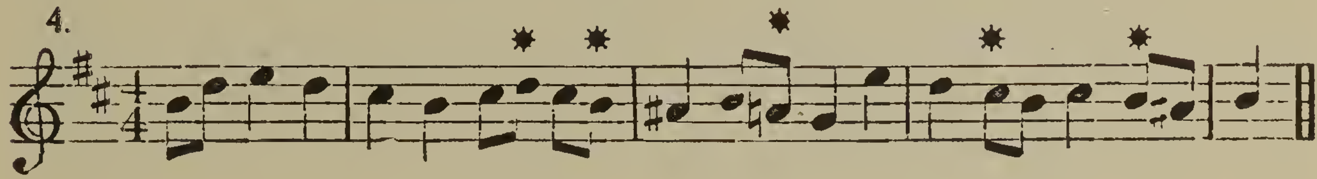

Harmonise and complete the following :—

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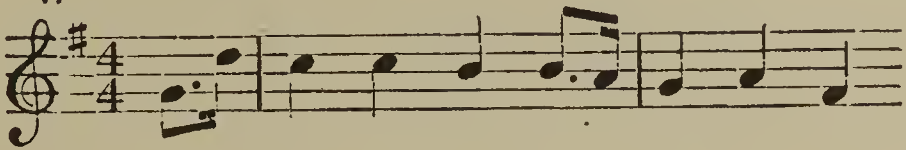

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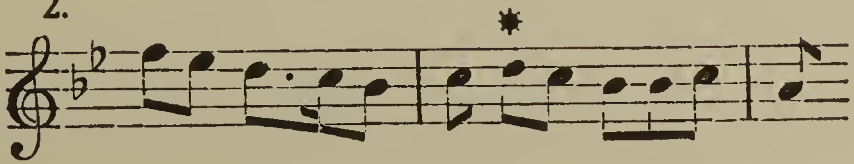

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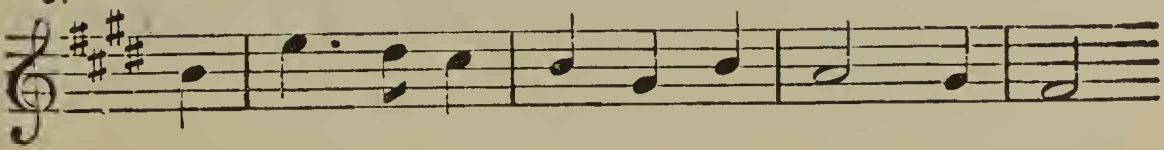

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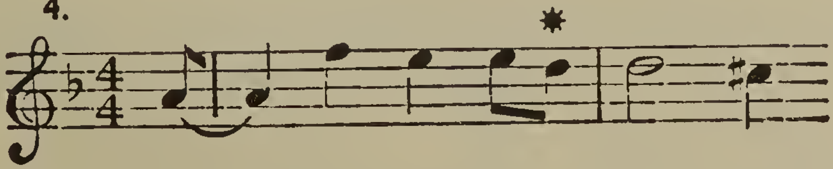
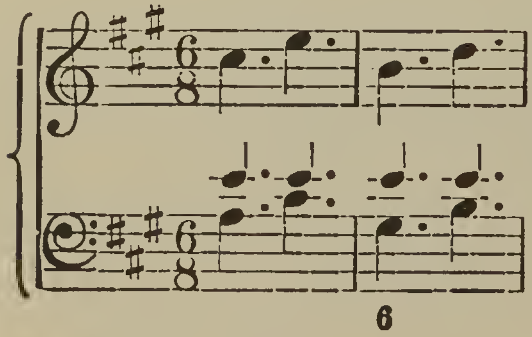


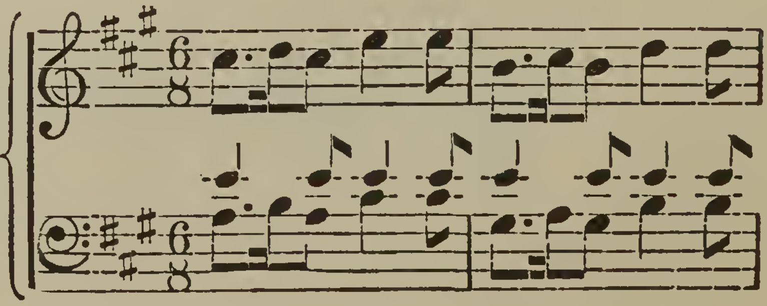
CHAPTER V.

Unessential Notes.

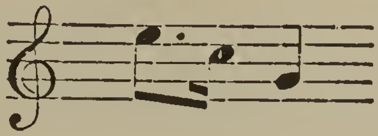
So far we have been dealing only with chords. But a very slight acquaintance with music, and particularly with instrumental music, will show the student that many tones are used which do not belong to the chords chosen. These are called unessential tones, as distinguished from harmony tones which are essential. These tones occupy a very important place in music, for a succession of chords following each other cannot make a composition, unless it be a hymn-tune or a chant. It is chiefly in what is called time-idiom that a composer makes his ideas felt. Now time-idiom consists in the reiteration of notes grouped in certain definite ways called time-figures, and these time-figures can rarely be constructed without the use of unessential notes.

The truth of this statement can easily be shown by taking out the figures from a composition and writing simply the chords that make the harmony. For example, the following would not strike anyone as being particularly beautiful, but let us add the time-figures, and the result is the beginning of a charming melody.





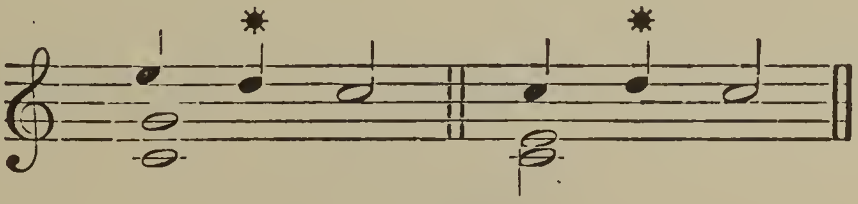
Now it is possible to use an arpeggio of a common chord for the pitch outline of a time-figure, e.g.



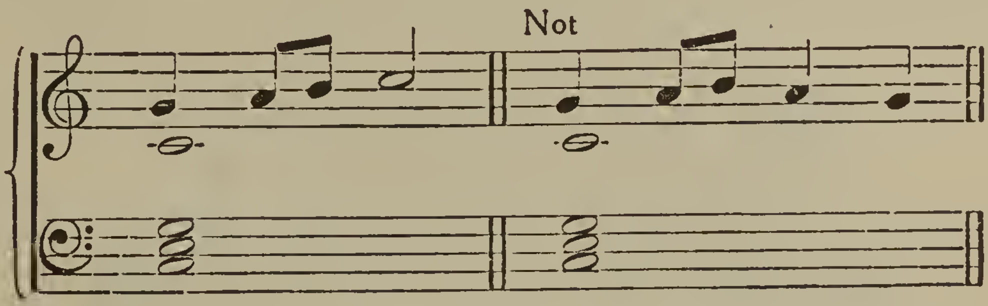
but this will not carry us far, and it will be found that the pitch outlines of most time-figures are made up of what are called unessential tones—that is, tones that do not belong to the harmony at all.

The word 'passing-note'[1] is often used to express an unessential discord. Passing-notes may be accented or unaccented. It is to the latter class that the word 'passing-note' is more particularly applied.

The passing-notes that are especially used in vocal music come *between* harmony notes. They cannot be approached or quitted by skip, but must be preceded and followed by notes next to them. They may either proceed on or return to the same note.



Two or more passing-notes may come together, but, in this case, it is best to proceed on in the same direction and not return from the second of two passing-notes.



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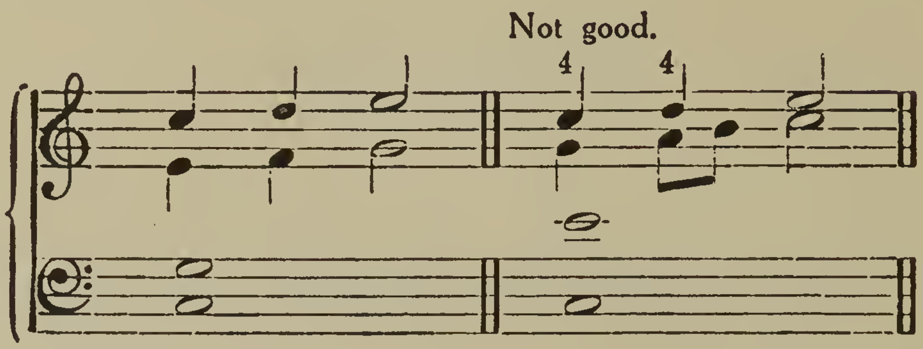
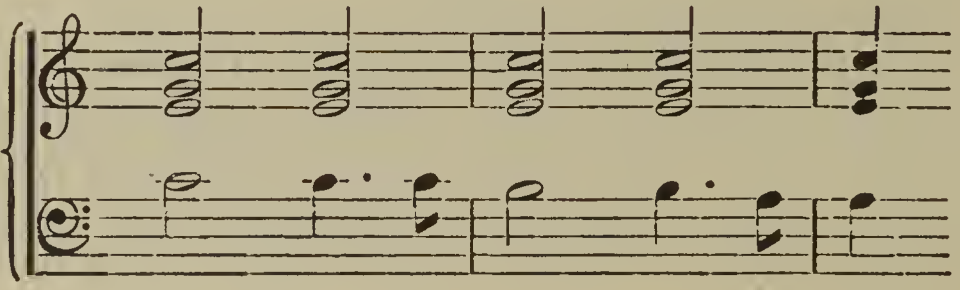
[1] The word 'tone' is the most correct to be used for a musical sound. The word 'note' expresses the notation of the tone. But as note is in common language often used when tone would be more proper, in this work the two words have not been confined to their proper meanings.

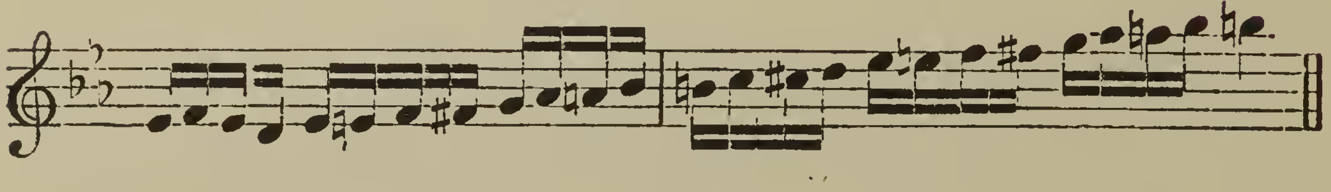
Two or more parts may have passing-notes at the same time, but if there is similar motion the moving parts must move in thirds or sixths.



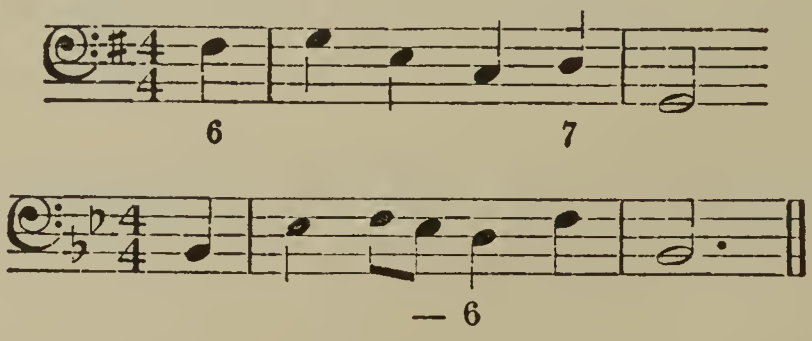
In modern music, the treatment of passing-notes is more free: they may be held on, instead of proceeding to the next note.



Chromatic notes—that is, notes which do not occur in the diatonic scale—are frequently used as passing-notes.

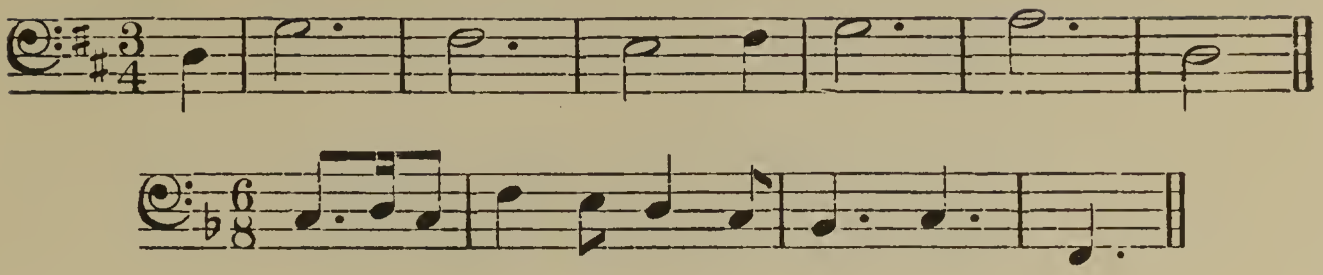


Exercise.—Fill up the following basses, inserting passing-notes whenever it is possible to do so.

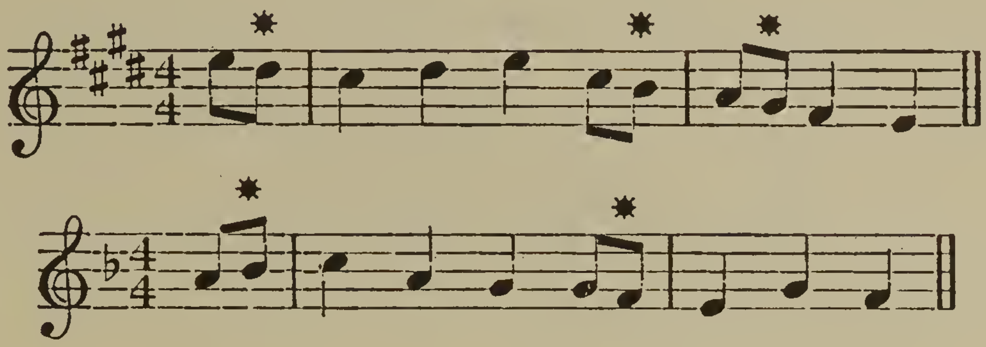


N.B.—A line under a note means that this note must not be harmonised.

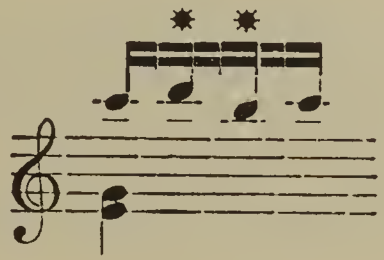
Unfigured Basses.



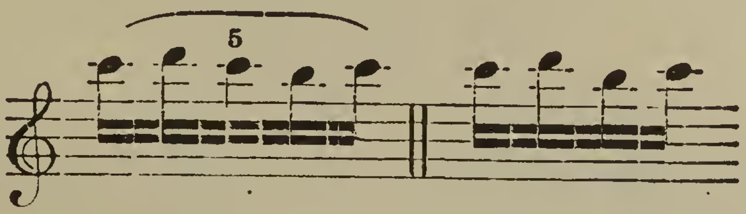
Harmonise the melodies, treating the notes marked * as passing-notes.



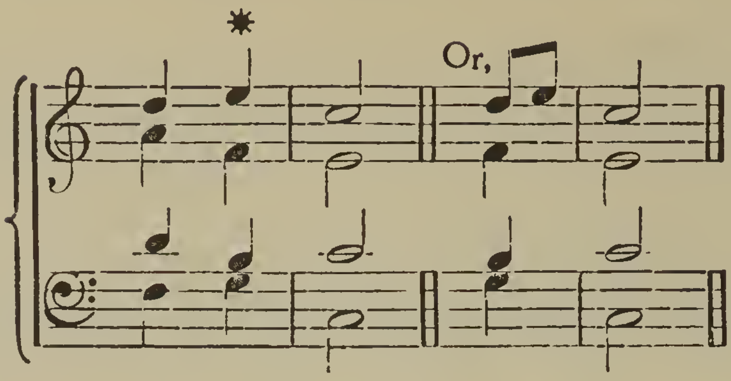
Changing-notes are passing-notes which skip a third up or down from a weak note. If the skip is made to another passing-note it is necessary to return to the original harmony note.



In all probability the origin of this class of changing-note was the turn, one of the notes being omitted in order to obtain an even number of notes in the group.



Frequently the skip of a third is made from the last note of a bar or group. In this case the changing-note may either come *with* or *after* the chord.

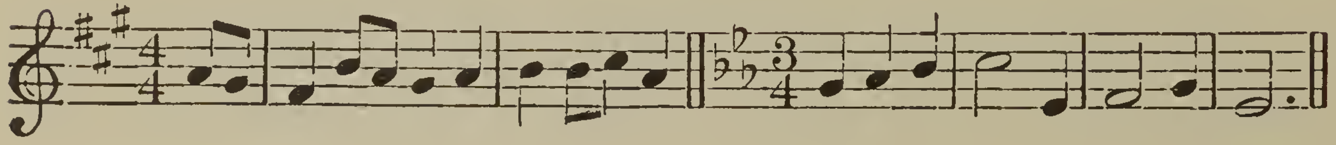


In these cases the changing-note should be written in the treble, for, when two notes a semitone apart are used, they should appear a *seventh* and not a minor second apart.

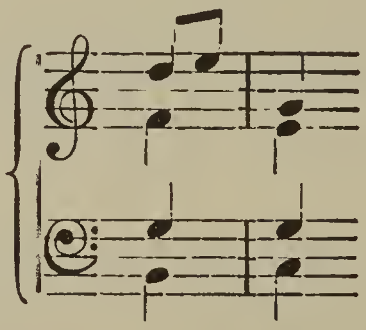
It will be seen that the above examples are perfect cadences. This form of the perfect cadence is quite common, and, generally speaking, when the melody falls a third to the tonic, the note thus falling should be treated as a changing-note.

Exercise.—Write and play perfect cadences, inserting a changing-note either *in* or after the dominant chord.

Harmonise the following :—

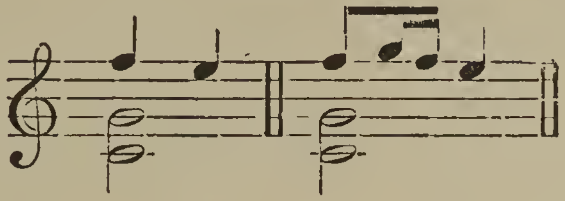


Changing-notes usually skip only a third, but it is quite possible to make larger skips from a passing-note, and this is the case more particularly in instrumental music, when the ear is satisfied if the note on which the changing-note should resolve appears in any part of the subsequent chord.

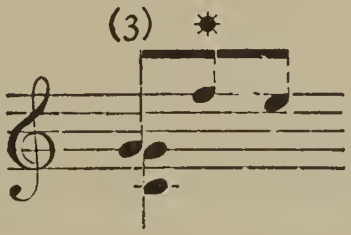


The word 'appoggiatura' is used for a passing-note occurring generally on an accented beat. It is a principle of harmony that, instead of the note itself, the note above may be played or written, falling, either immediately or after one or more notes, to the proper harmony note.

Thus instead of writing E, in the chord of C, it is possible to write F. This F, however, must sooner or later proceed to E.

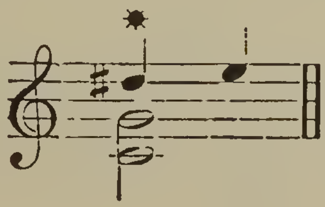


Appoggiaturas may be approached by skip: they are usually struck on an accented beat, but they may be taken on an unaccented beat or as part of a group.

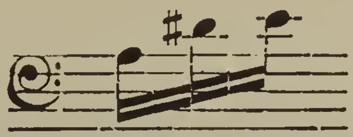


Instead of taking the note *above*, it is possible to use the note immediately *below* the harmony note.

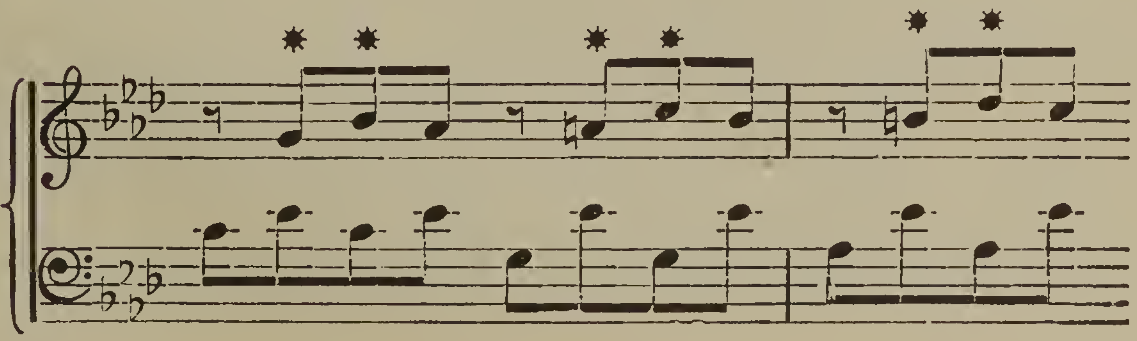
In this case the unessential note is called an auxiliary note, and it should be only a semitone below the harmony note.



Auxiliary notes are frequently unaccented.

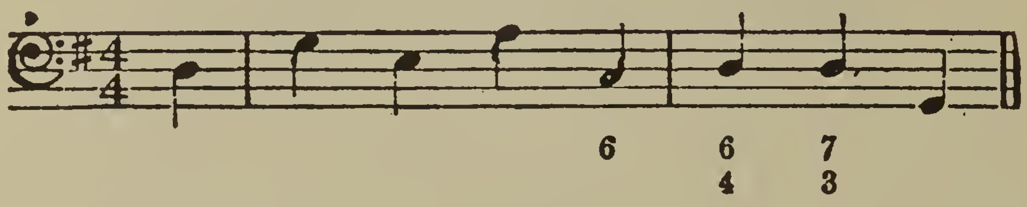


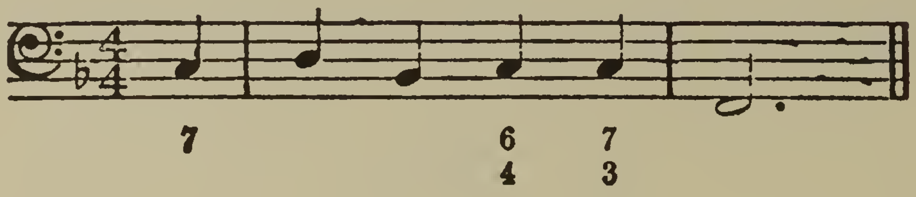
Frequently appoggiaturas and auxiliary notes are combined, the one skipping a third to the other.



Here the first chord is a sixth on C, the second a sixth on G, the third the common chord of A flat.

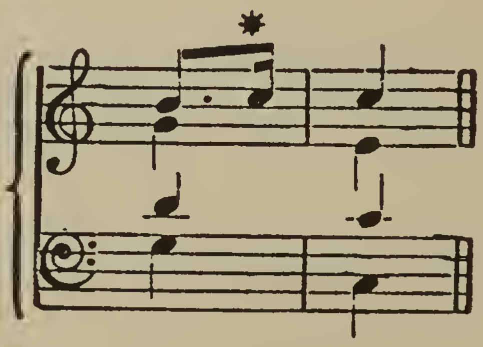
Exercise.—Fill up the following basses, inserting appoggiaturas and auxiliary notes whenever desirable.





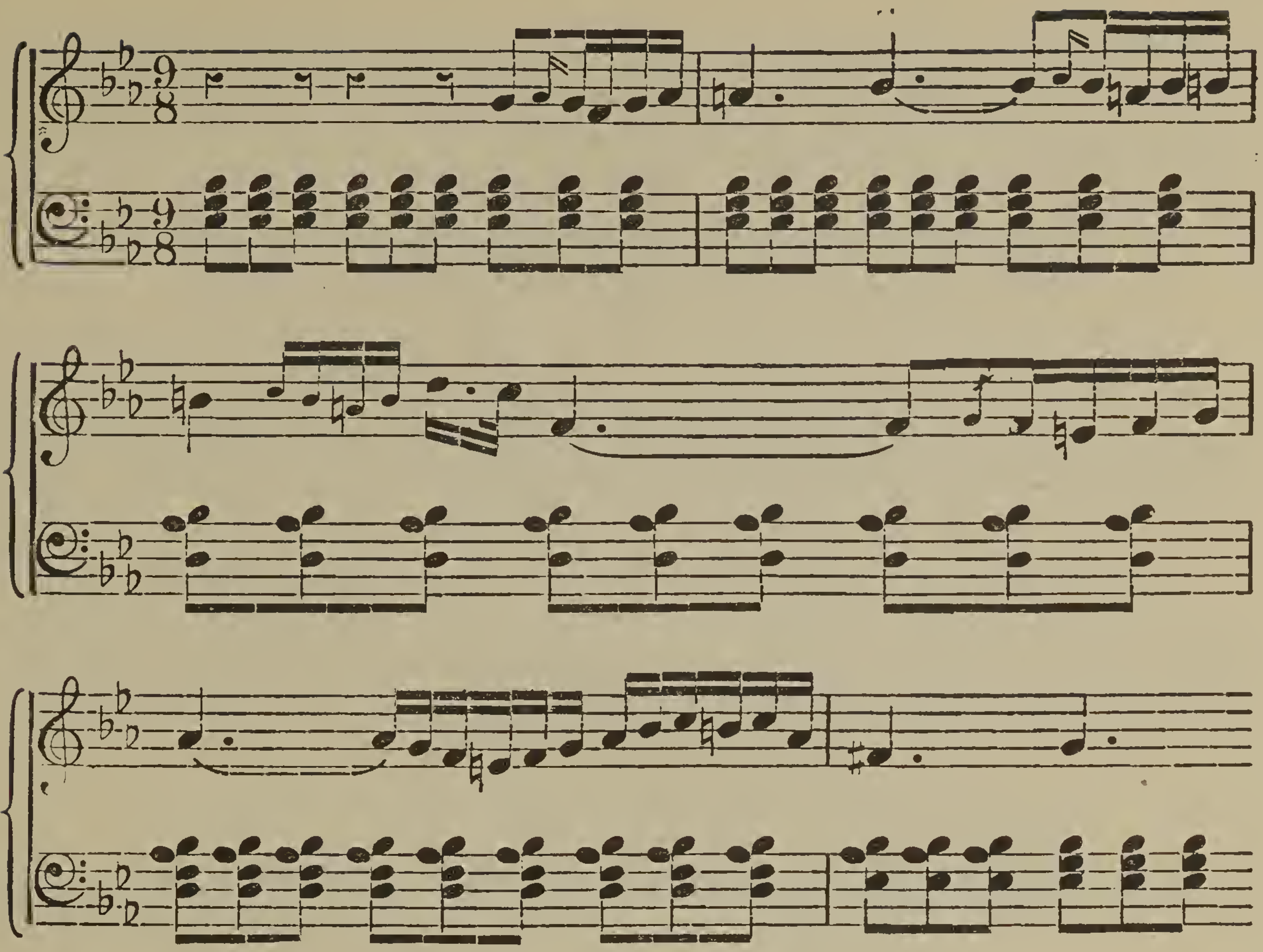
Fill up again the figured and unfigured basses given on page 55, adding passing-notes, changing-notes, appoggiaturas, and auxiliary notes.

An anticipation is a note struck before the rest of the chord to which it belongs. It frequently comes in the treble at the end of a bar.



The extreme importance of these unessential notes in music can easily be shown. Without them many different time-figures would be impossible. When the rate of a movement in music is fast, a great variety of different chords would tend to confusion: therefore few chords are used, and the effect is gained by different combinations of time-values, in which combinations unessential notes are very important. Moreover, the use of appoggiaturas and auxiliary notes gives a dissonant effect of great use.

An example from Beethoven will help to make clear this point:—

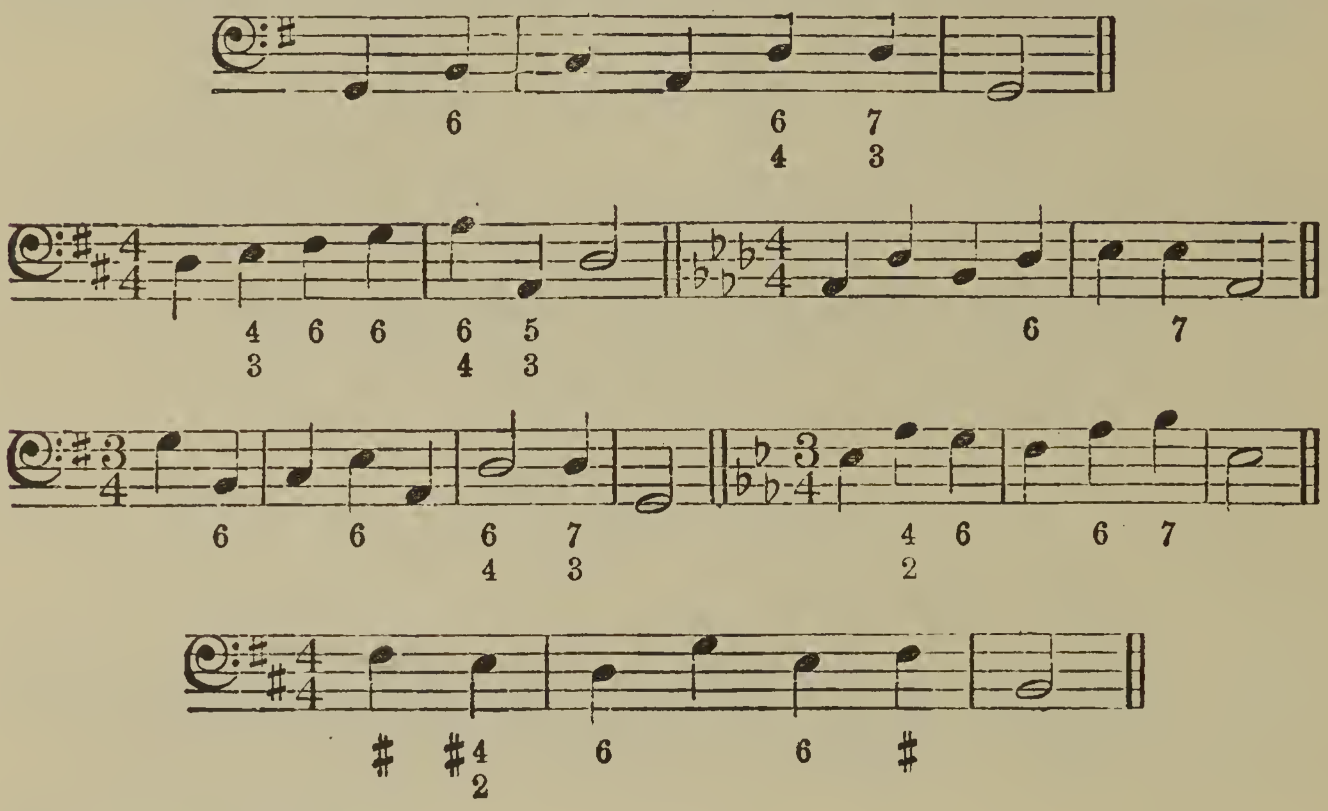


In this passage only two chords are used—the tonic common chord in bars 1, 2, and 5, and the first inversion of a dominant discord in bars 3 and 4. The effect, therefore, gained from the figures is made principally by unessential notes. In bar 1, F and A flat are passing-notes: in bar 2, A natural is an auxiliary note and B natural a chromatic passing-note: in bar 3, B natural is an auxiliary note and E natural a passing-note: in bar 4, G, E natural and B natural are unessential notes: in bar 5, F sharp is an auxiliary note.

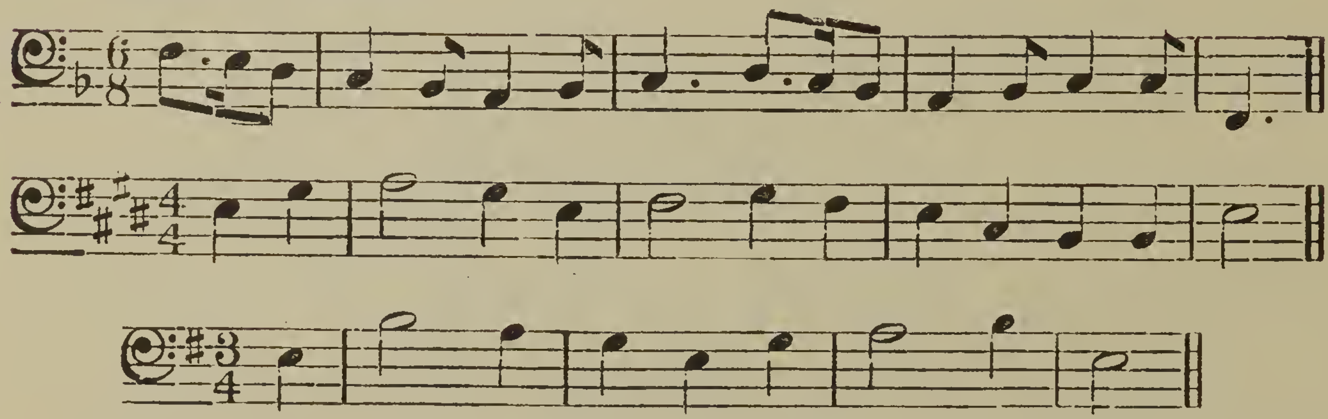
The student should listen carefully to this passage and then observe the effect of the passing-notes and of the auxiliary notes, paying attention to the dissonant effect procured by the latter. He will also see that it is possible to sound the same note with a flat in one part and a natural in another. When this occurs, the raised note is frequently a simple auxiliary to the note above.

It will be extremely useful to turn to the works of the great composers and find out what notes are unessential and how the time-figures are constructed in the opening sections.

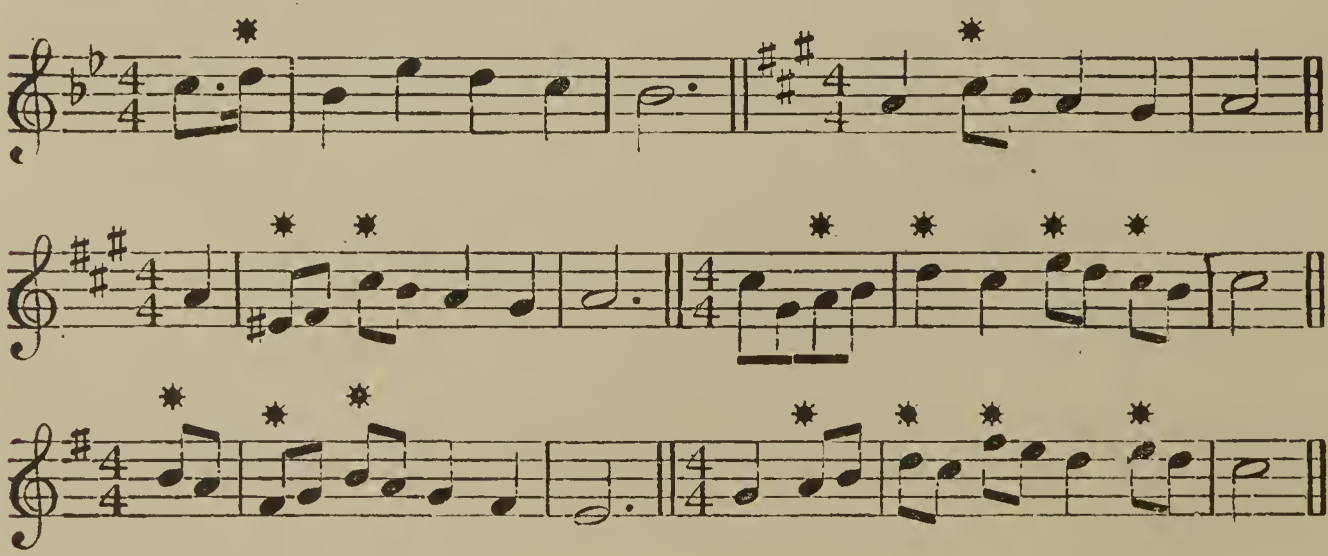
Exercises.—Fill up the following figured and unfigured basses—first, with chords only; secondly, with chords and passing-notes; thirdly, with changing-notes; fourthly, with appoggiaturas; fifthly, with auxiliary notes on the harmonic basis.

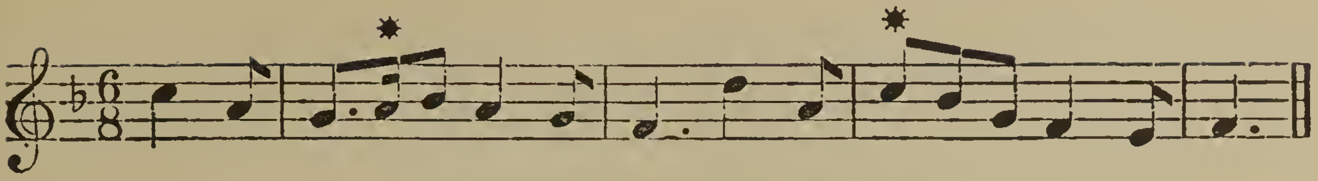


Unfigured Basses.



Harmonise the following melodies, treating the notes marked ✷ as unessential.





Write successions of chords and inversions, and insert unessential notes whenever the effect can be thereby improved.

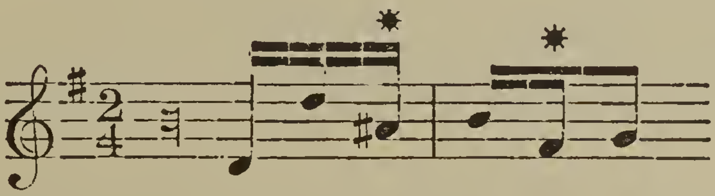
The student should also play cadences and successions of chords, putting in appoggiaturas and auxiliary notes so as to arrive at the different effects that can be produced by the addition of unessential notes.

He may now write short original melodies and harmonise them for himself.

Additional Exercises.

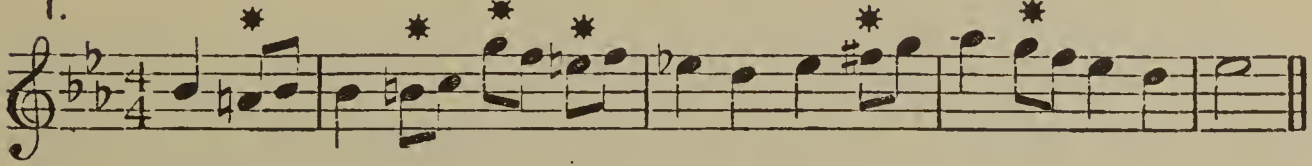
On any common chord, by the aid of unessential notes, write different figures.

Example : Figure on the chord of G major.



Harmonise the following melodies :—

1.



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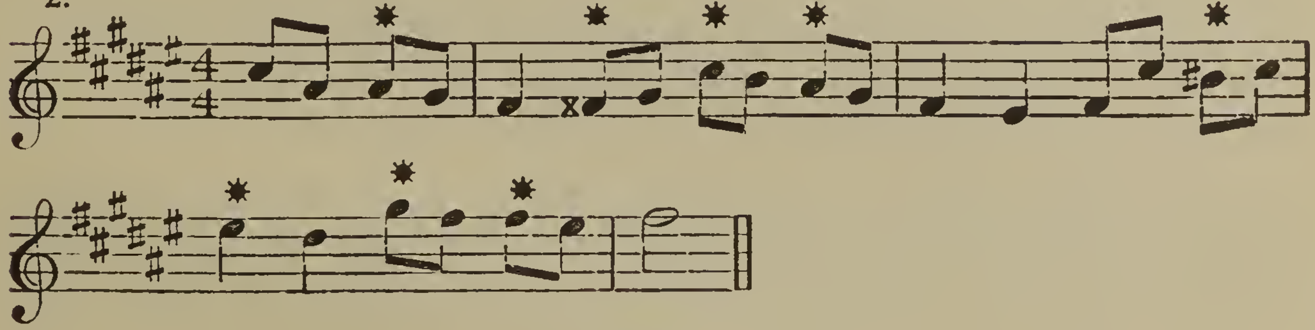

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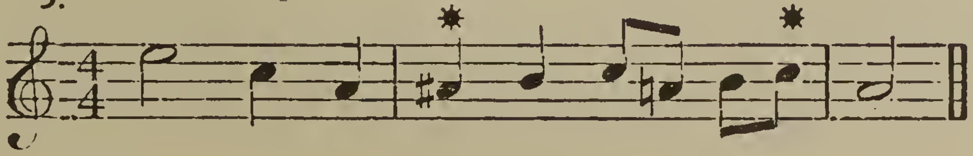
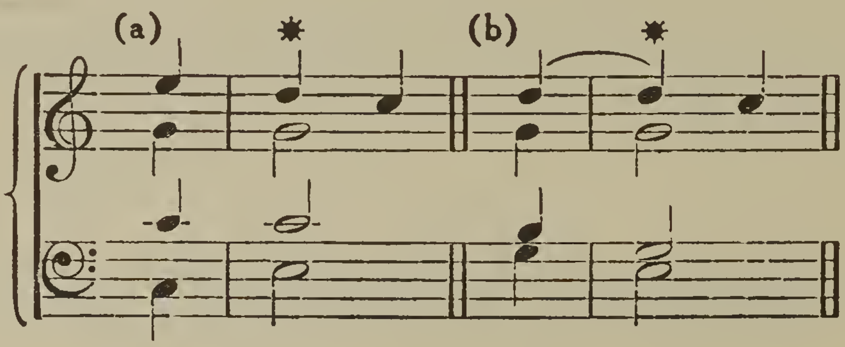


CHAPTER VI.

Suspensions.

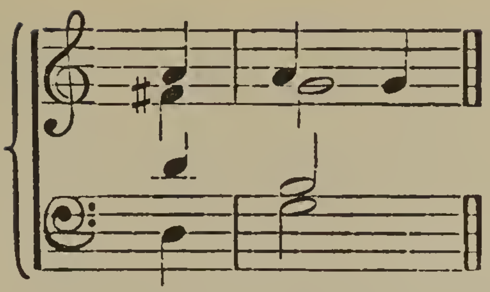
An appoggiatura is a note written immediately above a harmony note and falling to it. When this note is prepared—that is, when the dissonant note is sounded in the previous chord—it is called a suspension.



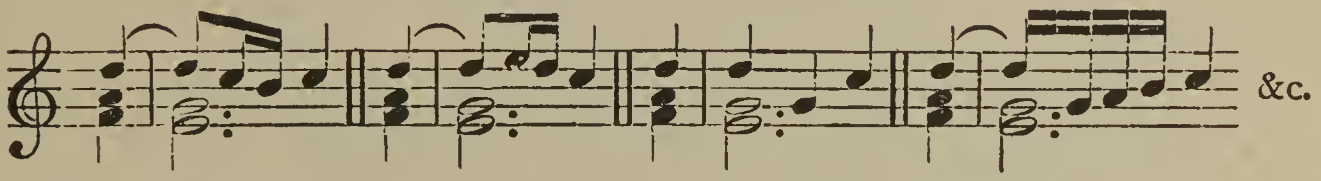
The D in bar 2 Example (a) is an appoggiatura: in Example (b) it is called a suspension, as it is held on from the previous chord.

A suspension should be strictly prepared in the same part in which it is struck; it should be sounded on an accented beat; the note on which it resolves should not be sounded with it unless in the bass or unless it is some distance from the suspended note; and the suspension should resolve on the note below either immediately or after one or more ornamental notes.

It creates a harsh effect to sound a suspension and the note on which it resolves together, but the harsh effect is modified if the two are some distance apart. Progressions like the following, when the suspension resolves on the same note in the same pitch as the one sounded in another part, are not good in vocal writing, and should be used with great care even in instrumental writing.

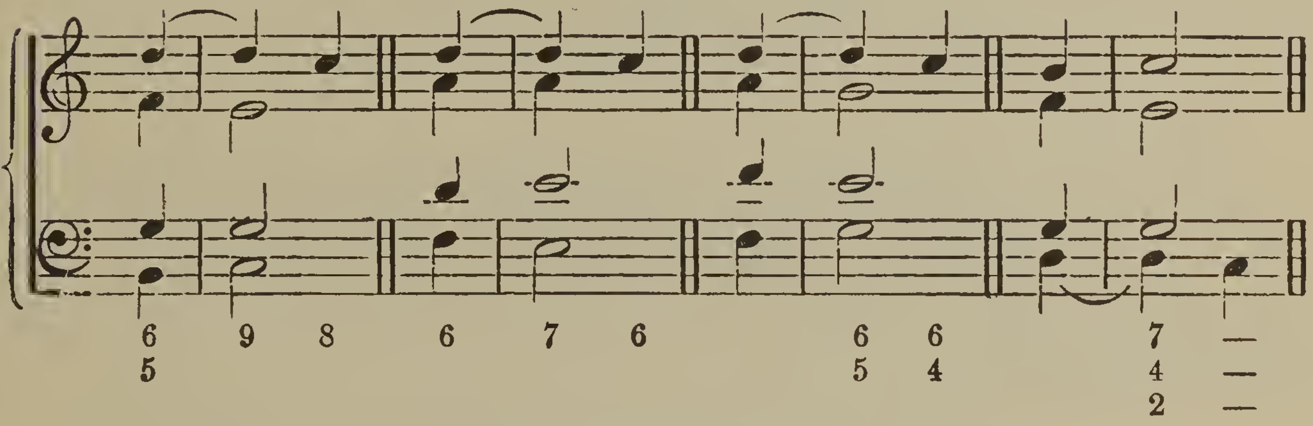


Ornamental notes interposed between a suspension and its resolution are turns, passing-notes, or notes belonging to the chord of resolution.

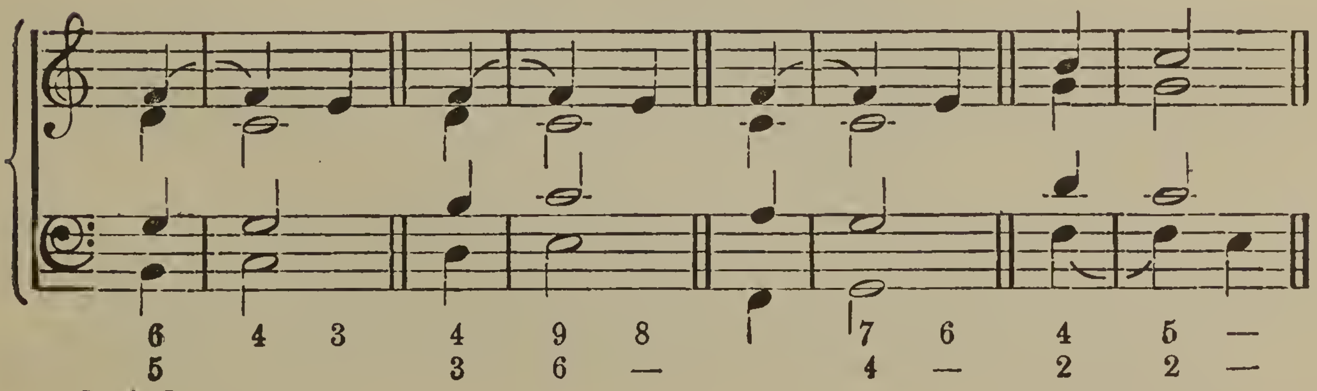


Suspensions can be classified as follows:—

1. The suspension 9 to 8 and its first inversion 7 to 6, second inversion $\substack{6\\5}$ to $\substack{6\\4}$, last inversion with suspension in the bass $\substack{7\\4\\2}$ to $\substack{8\\5\\3}$, but the latter figures are usually expressed by lines.

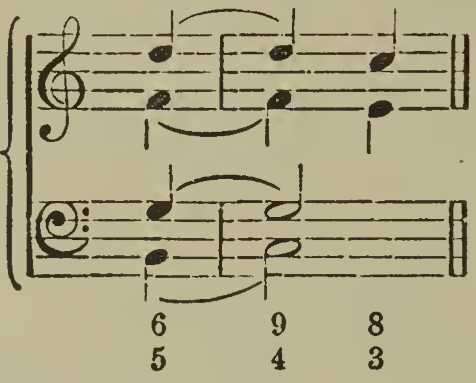


2. The suspension 4 to 3 and its first inversion $\substack{9\\6}$ to $\substack{8\\6}$, second inversion $\substack{7\\4}$ to $\substack{6\\4}$, last inversion with suspension in the bass $\substack{5\\2}$ to $\substack{6\\3}$, the last figures are, however, usually expressed by lines, which indicate that the notes in the upper parts must be held on.



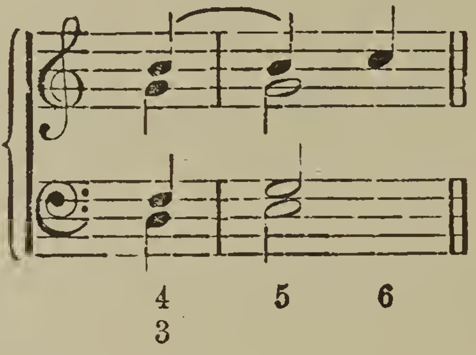
Exercise.—In the keys D, E flat major, A, C sharp, F minor, write and play suspensions 9 to 8 and 4 to 3 and their inversions.

Two notes may be suspended at the same time:—

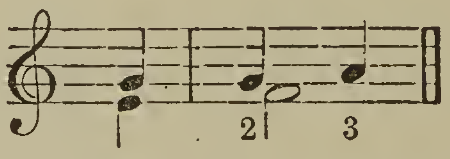


A suspension resolving upwards is called a retardation.

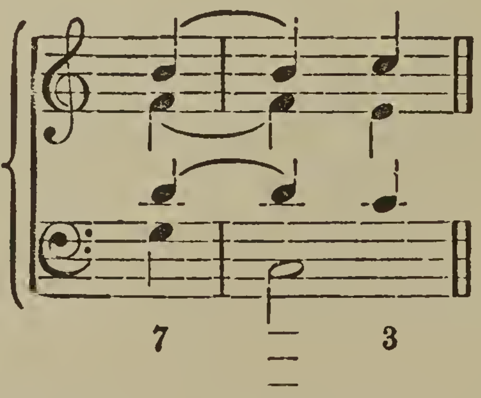
The usual retardation is leading-note to tonic, for the leading-note is the only note that has the tendency to ascend.



But when more than one note is suspended, the parts may move either up or down in the resolution; and when a note is sounded immediately below a dissonant note, the dissonance will ascend so as to avoid resolving on the note already sounded.



A whole chord is frequently suspended, especially in the cadence.[1]



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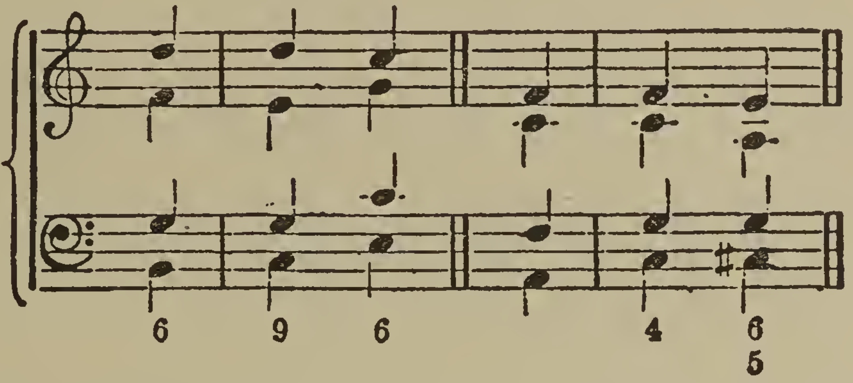
[1] In this case the suspended notes are expressed by lines and the chord of resolution by 3.

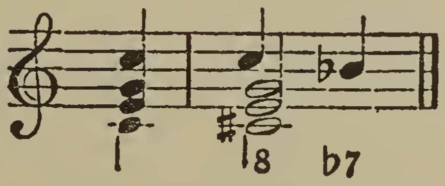
Exercise.—Play perfect cadences in major and minor keys, suspending all the upper parts.

Generally speaking any note which in the ordinary progression would fall to the note below can be sustained and made a suspension.

Sometimes the bass moves away as the suspension resolves. In this case an usual means of recognising a suspension—namely, by the fact that successive figures follow each other—is absent. A 9 or a 4 standing by itself generally means that these notes are suspensions.



A curious suspension is obtained by sounding an octave, raising the lower note a semitone and holding on the higher note, which eventually falls a major second.

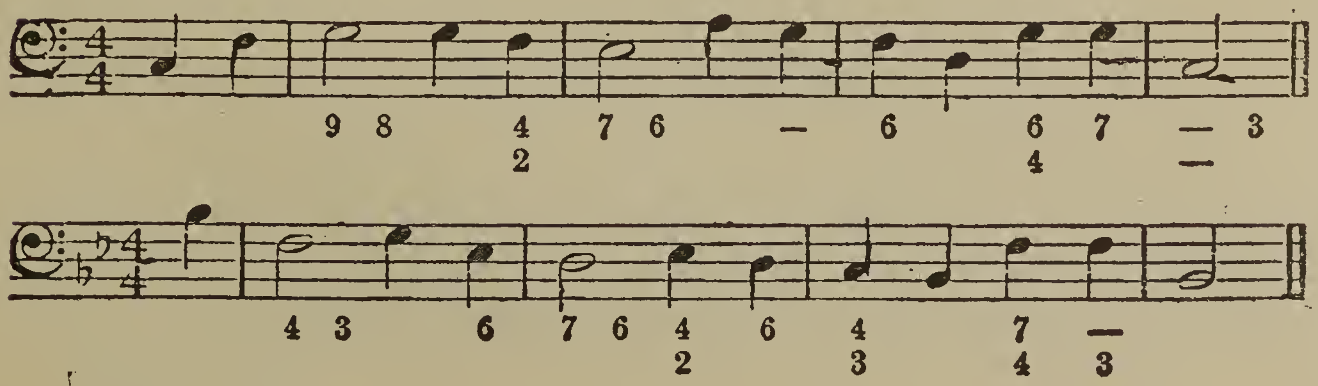


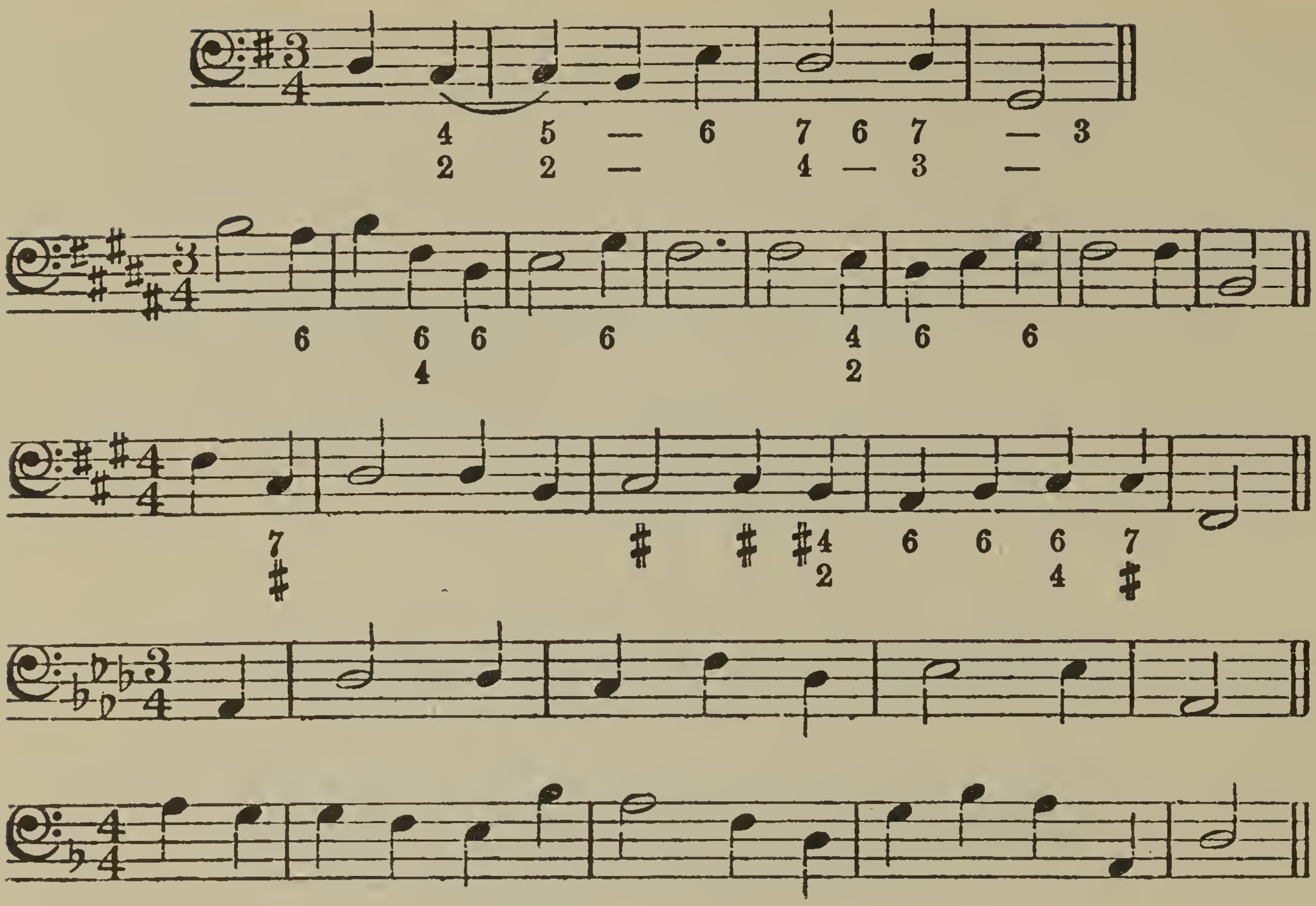
In this example the second chord is a diminished seventh, the nature of which will be explained later.

Exercises.—Write examples of all suspensions in the keys of A flat and E major and in D minor.

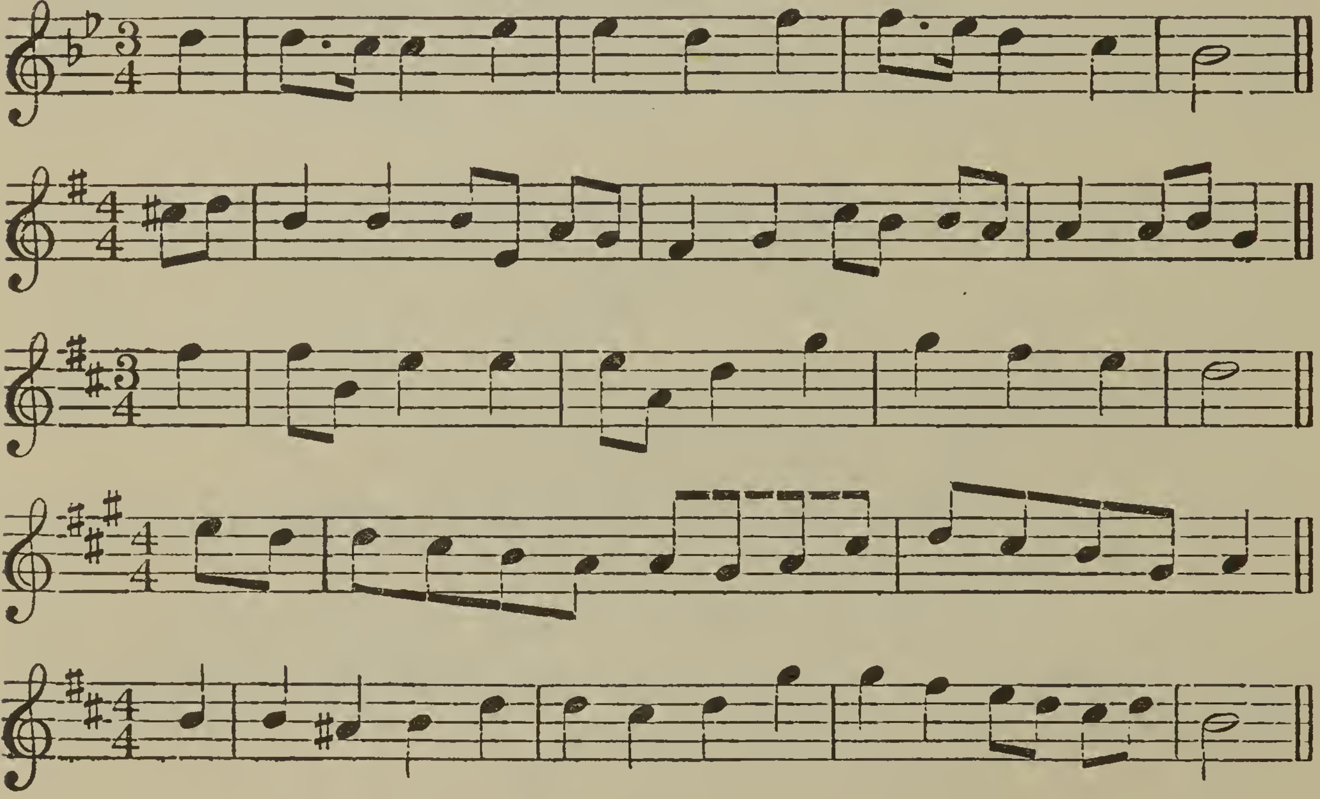
Fill up the following figured and unfigured basses, first simply, then with the addition of suspensions, passing-notes, appoggiaturas, and auxiliary notes.

Basses.





Melodies.

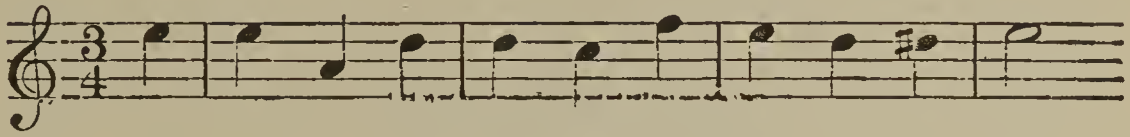


Additional Exercises.

Write the following successions of chords and then make compositions of different kinds on them with the aid of suspensions and unessential notes: Tonic, second inversion dominant seventh, first inversion tonic, first inversion supertonic, second inversion tonic, dominant; mediant, sub-mediant, first inversion sub-mediant, supertonic, dominant, tonic.

Harmonise the following and add a corresponding phrase :—

1.



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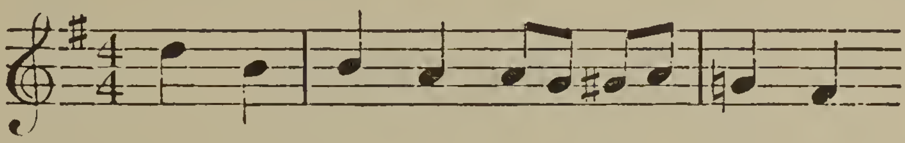

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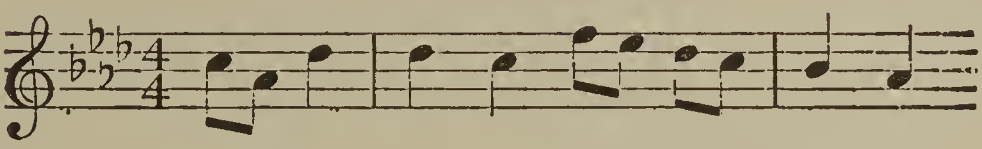

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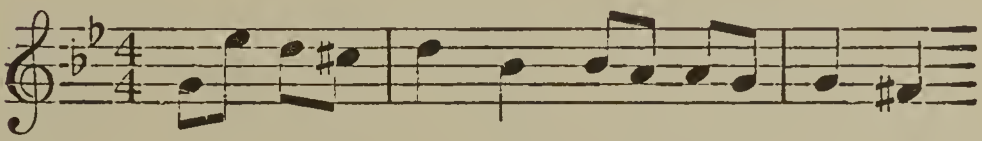


In these exercises unessential notes are not marked.

CHAPTER VII.

Modulation.

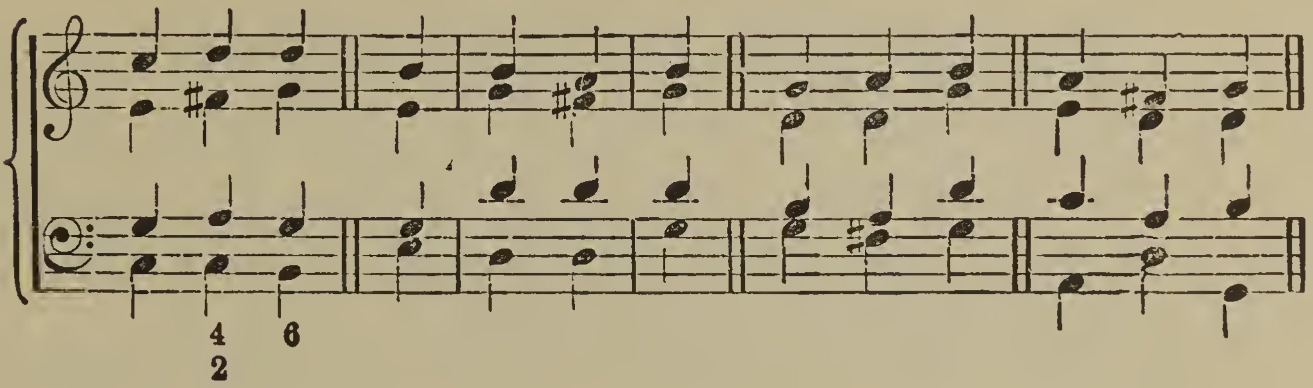
Motion within a key consists of progressions from **atonic** tones (that is, tones not comprehended in the tonic chord), to syntonic (that is, tones in the tonic chord) and from syntonic to atonic. In the perfect cadence the dominant seventh is atonic and it resolves on a syntonic chord. Thus variety is gained, for obviously the repetition of a simple chord without contrasting matter must cause monotony. But only a limited amount of contrast can be obtained within the limit of the key. It is, therefore, good to pass to other keys in order to obtain variety, while at the same time the hold of the central key is maintained, so that it is necessary to end in it in order to obtain the feeling of repose. The motion from syntonic to atonic and from one key to another is called 'Circling rhythm,' the principal key remaining as a centre while subordinate keys are touched. The process of passing from one key to another is called *Modulation*. Modulation can be effected in three ways :—

1. Diatonic Modulation, passing to one of the five nearly related keys by means of some chord or chords common to both keys. The five nearly related keys are the ones whose signatures are the same or nearly coincide with the signature of the principal key. Thus the nearly related keys to C major are A minor with the same signature, G major and E minor, with one sharp more, and F major and D minor with one flat more in the signature. By chord or chords common to both keys we mean chords which occur as diatonic chords in both keys. It was seen, for example, that every major chord can

occur in *five* keys and can thus serve the purpose of modulation to or from any one of those keys.

For example, the keys of C and G have the following chords in common: C, E, G; E, G, B; G, B, D; A, C, E.

After any one of these chords the accidental F sharp which distinguishes G from C can be inserted and a modulation made.



Exercise.—Play and write modulations from F major and C sharp minor to all the nearly related keys by means of diatonic modulation.

Diatonic modulation is essential when it is wished to make a cadence in a new key. In this case it is necessary to use chords that are not inconsistent with the new key, in order that when the cadence comes there may be a feeling of repose.

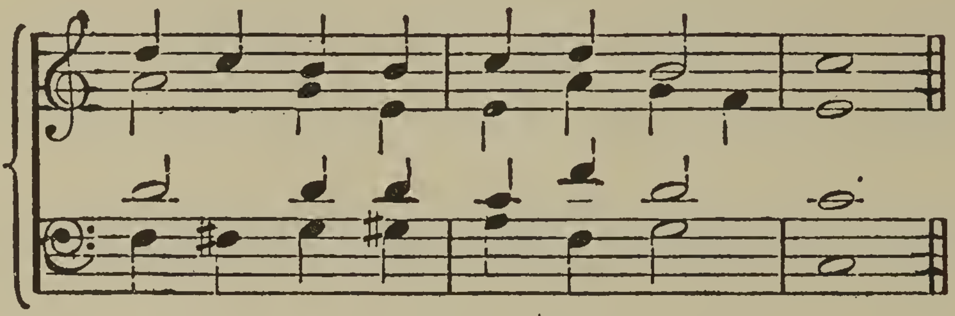
2. Chromatic Modulation, effected by means of some chord or chords 'chromatic,' in one or both keys. The nature of these chords will be explained later. Another means of effecting chromatic modulation is by raising or lowering one or more of the notes of a chord, e.g. raising F to F sharp. This modulation is useful in passing through keys.
3. Enharmonic Modulation, made by changing the name or names of one or more of the notes of a chord without changing the sound, e.g. calling A flat G sharp.

This modulation is useful when it is desired to enter a remote key, e.g. C major to B flat minor.

There are two kinds of modulation.

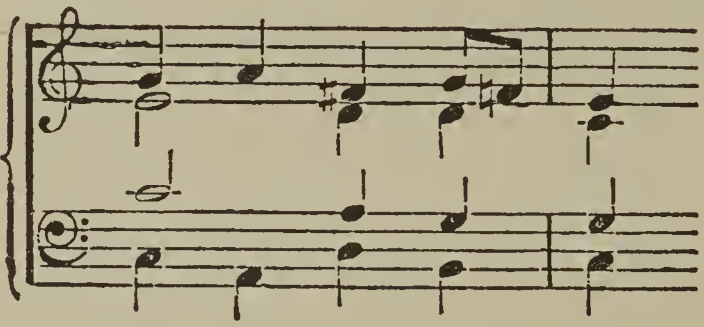
1. Transient, when new keys are touched without in any way causing a change of key-centre.
2. More permanent modulation when a new key-centre is established, without, however, destroying the necessity of a return to the original key-centre.

Transient modulations are constantly being made in all modern compositions. They are partly caused by the love of semitonic movement—that is to say, the desire to approach important notes by semitones instead of by whole tones.



In this example there are transient modulations to G major and to A minor both effected by chromatic means, and there is no feeling of rest in either of these keys.

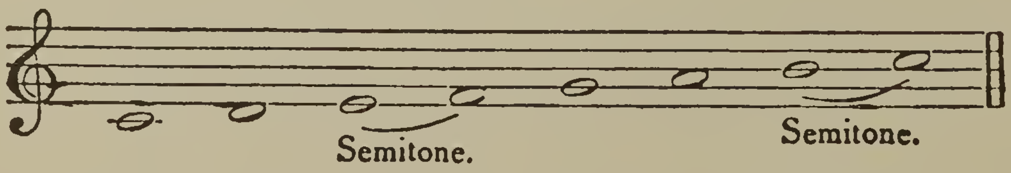
The same results may be obtained by using diatonic modulation.



Here the key G is touched without affecting the key-centre C.

The more permanent modulation occurs when it is wished to stay in the new key. In this case it is necessary to approach the new key gradually, not by chromatic but by diatonic modulation. Roughly speaking, this kind of modulation occurs when there is a cadence in the new key: transient modulation in the course of a phrase.

With the older composers almost invariably we find that when the piece was major, the principal modulation was to the key of the dominant. The reason for this can be found in the constitution of the scale.



The scale is made up of two tetrachords, each of which ends with a semitone. Now the tendency of a semitone is to pass to the next sound, and thus we get a cadence giving a feeling of rest But there is a semitone between the third and fourth of the scale which may cause a feeling of rest in another key, the sub-dominant.

A modulation to the dominant removes this feeling by taking away the dangerous semitone, and thus causes the central key to be more firmly established.

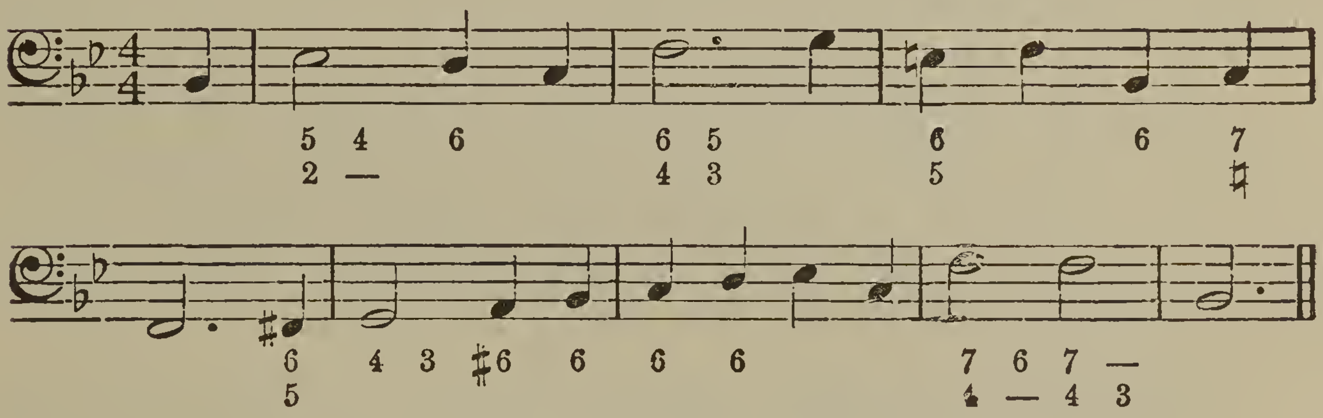
If, beginning in C, we made a lasting or cadential modulation to F, that key would assert itself as the real key-centre, but if we modulate to G, there is no fear of F being felt to be the proper centre, while the temporary nature of the modulation to G is easily perceived.

The minor key is not liable to the same danger, for there is a whole tone between the third and fourth degrees of the scale, and therefore the modulation to the dominant does not so regularly appear.

As time went on, and the principles of tonality were more clearly recognised, it was found that the proper key-centre can easily be felt, and therefore modulations to the dominant were not necessary. Chord relationship has been more and more extended, until at the present time modulations to remote keys can be made without interfering with the proper key-centre. The student should now examine melodies by the great composers, indicate the keys entered, and show how the modulations are effected.

Fill up the given figured basses.

1.



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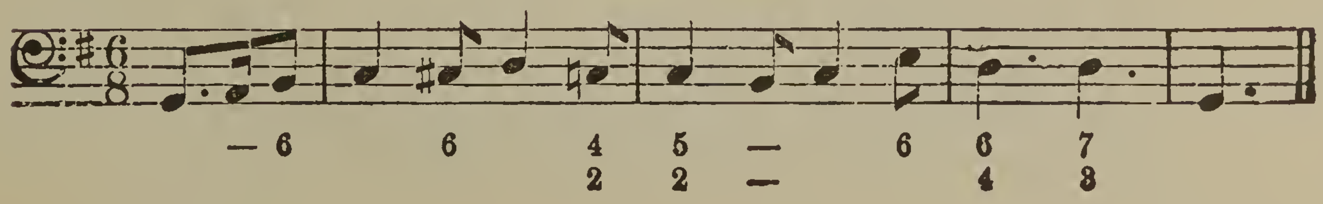

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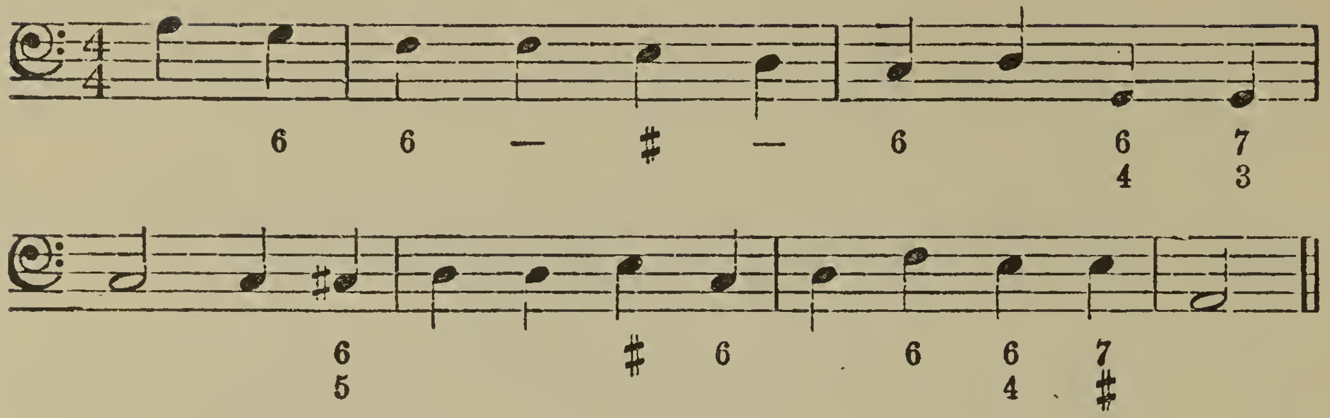
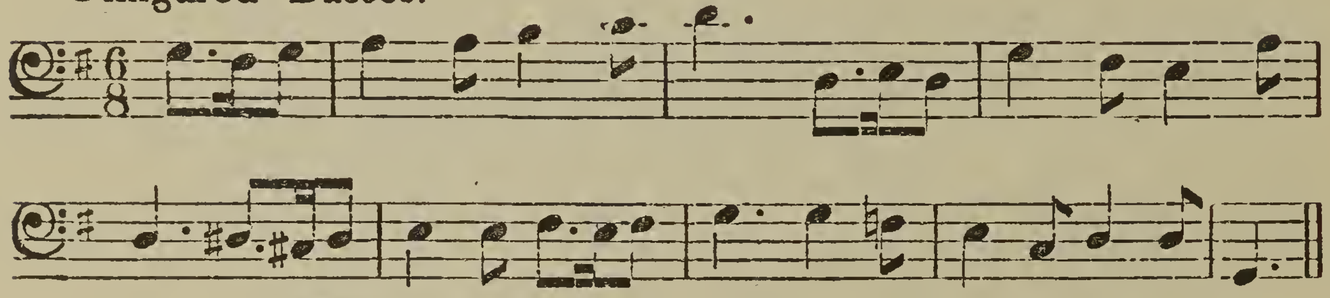
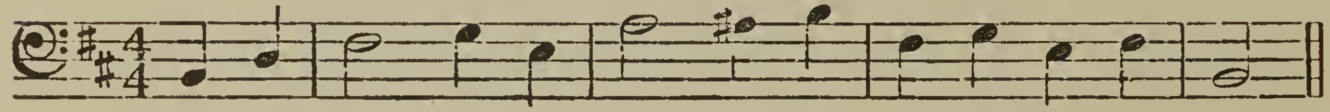
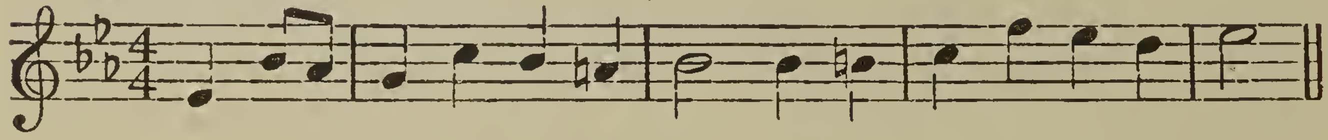


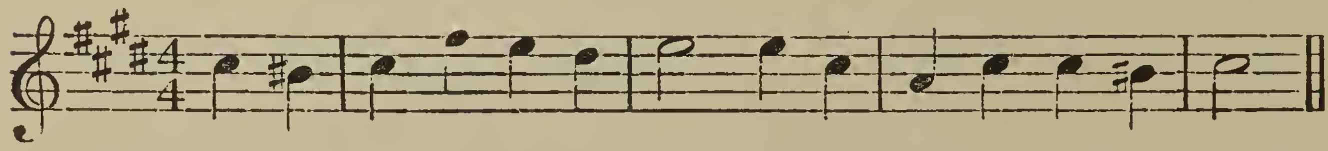
Unfigured Basses.





Melodies.





Write the following successions of chords, first simply, then with the addition of unessential notes and suspensions. Bar the examples so that in the first case the cadence in the dominant key, in the second the cadence in the relative major, occur half-way through the piece. Transpose the results to other keys.

1. Key D major. Tonic, second inversion dominant, first inversion tonic, sub-dominant, supertonic, first inversion supertonic, dominant, first inversion dominant of B minor, dominant seventh B minor, tonic B minor, first inversion B minor chord, second inversion tonic in A major, dominant seventh in A,

tonic in A, tonic in D, first inversion dominant seventh in G major, tonic in G, second inversion dominant in G, first inversion tonic in G, tonic in G, dominant in G, first inversion dominant in E minor, last inversion dominant seventh in E minor, first inversion tonic in E minor, tonic in E minor, second inversion tonic in D, dominant seventh in D, tonic.

2. Key G minor. Tonic, first inversion tonic, dominant seventh, sub-mediant, sub-dominant, dominant seventh of B flat, tonic B flat, first inversion chord of E flat, last inversion dominant seventh in C minor, first inversion C minor chord, C minor chord, second inversion tonic in G minor, dominant seventh, tonic.

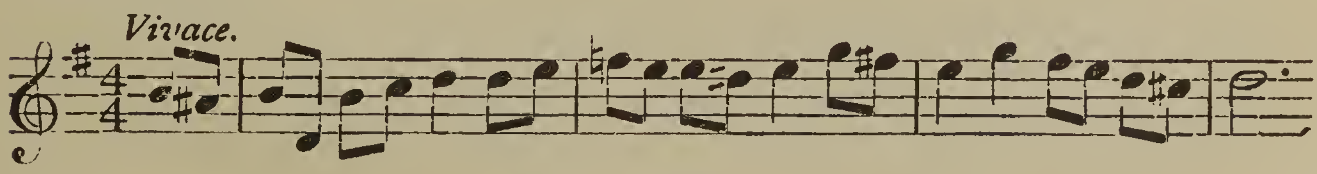
Additional Exercises.

On the following chords write compositions in three phrases :—

Key A major. Tonic, sub-mediant, supertonic, dominant, first inversion tonic, first inversion supertonic, second inversion tonic, dominant ; first inversion dominant of F sharp minor, tonic F sharp minor, first inversion dominant in E major, tonic in E major, first inversion sub-dominant in E, second inversion tonic in E, dominant seventh in E, tonic in E ; tonic in A, sub-mediant, last inversion dominant seventh in B minor, first inversion tonic in B minor, second inversion tonic in A, dominant seventh, tonic.

Harmonise the following and add one or two corresponding sections, returning to the original key.

1.—For Piano.



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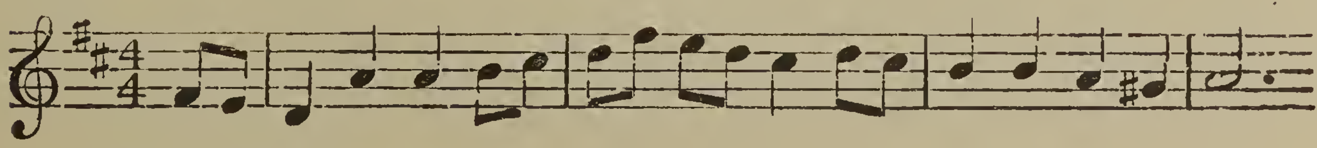

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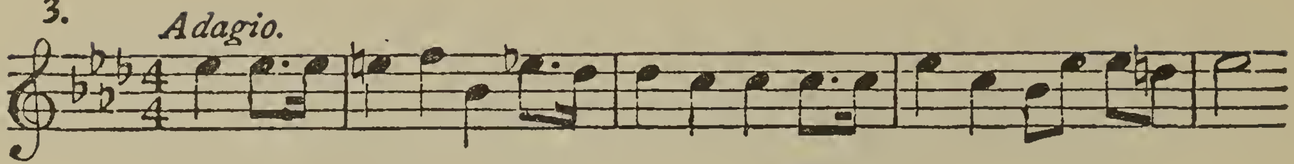

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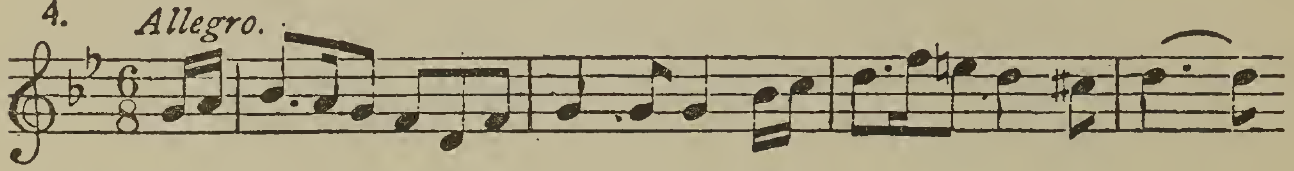
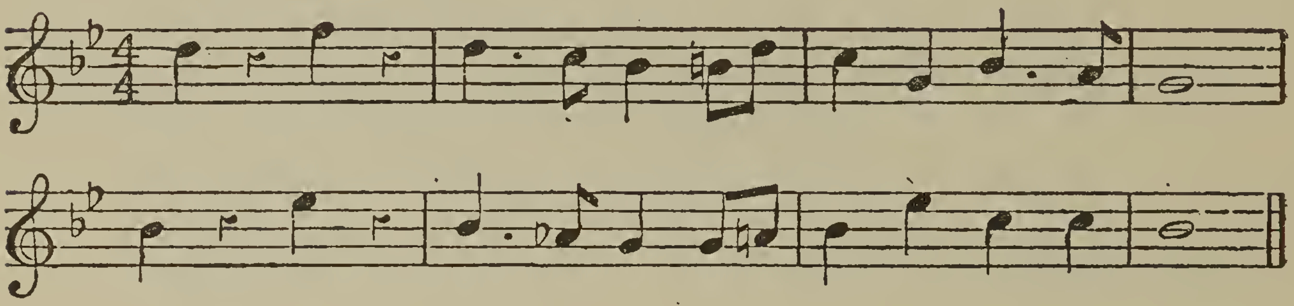


Harmonise the following melodies :—

1.



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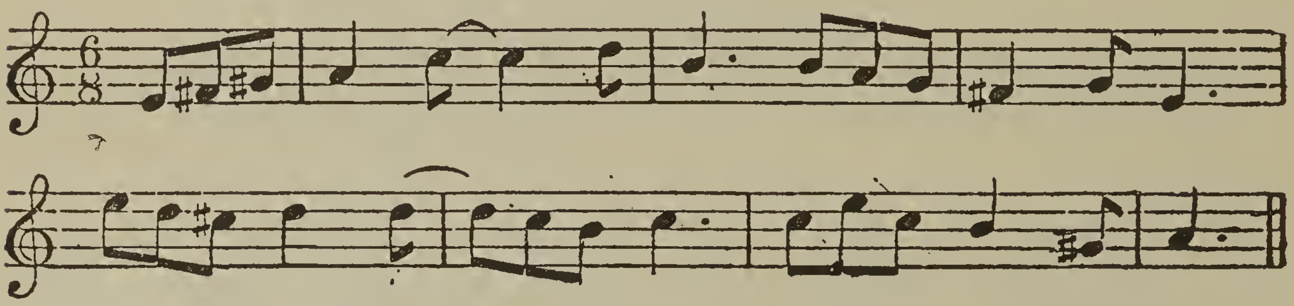
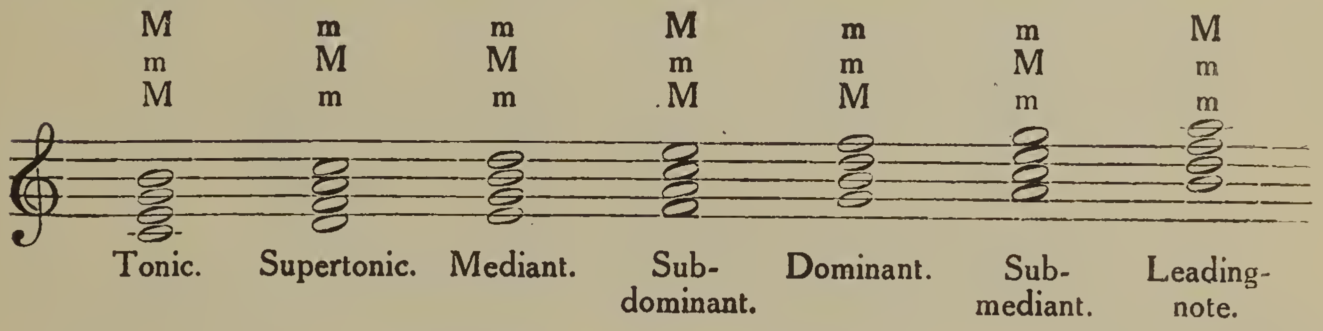


CHAPTER VIII.

Secondary or Non-Dominant Sevenths.

It has been seen that the dominant seventh is built up of one major third, then a minor third, and then another minor third. The combination of a major third followed by two minor thirds gives a very mild dissonant effect. A seventh may be written on any degree of the scale, but no other seventh contains the same combination of thirds as those found in the dominant seventh.

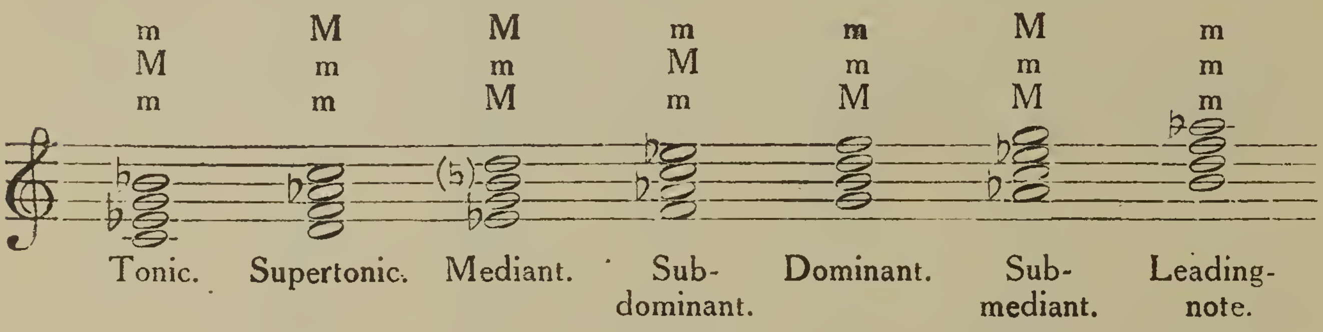
The following are the sevenths on every note in the major scale with the arrangements of thirds as they follow each other, a capital 'M' standing for major, a small 'm' for minor :—



From this it will be seen that the dominant seventh is alone in having a major third followed by two minor thirds. The most perfect consonance is obtained when a chord begins with a major third followed by a minor third, and the addition of a second minor third only makes a slight dissonance. Three sevenths—on the supertonic, mediant, and sub-mediant—have two minor thirds and a major third, beginning with a minor third; the seventh on the leading-note has also two minor and one major third, but in this case the two minor thirds come below; two sevenths—on the tonic and on the sub-dominant—have two major and one minor third. We may, therefore, classify the sevenths according to the amount of dissonance they contain, remembering that the combination of one major with two minor thirds will give a mild dissonance if the major third is the lowest, a more pronounced dissonance if a minor third is the lowest, while two major thirds with one minor give a very harsh effect. Our classification will then be as follows :—

1. Dominant seventh. 2. Sevenths on supertonic, mediant, and sub-mediant. 3. Sevenths on tonic and sub-dominant. The seventh on the leading-note occupies an ambiguous position which will be explained later. At present we may label it 2a. This classification is extremely useful in training the ear to the recognition of chords. The student will soon be able to distinguish between the different degrees of harshness, and so will be able to recognise each seventh. Moreover, from this classification we can see that the dominant seventh can only come in one major key, each seventh of the second class can come in three keys, while each seventh of the third class can come in two keys.

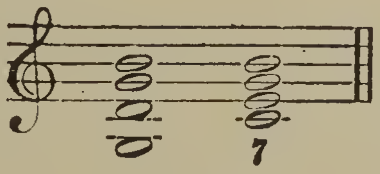
In the minor mode, sevenths are arranged as follows :—



In the seventh on the tonic it is necessary to flatten the leading-note, for otherwise the dissonance could not be resolved. In the seventh on the mediant, the leading-note is also generally flattened. Classifying these sevenths we get the following result : 1. Dominant seventh. 2. Sevenths on tonic and sub-dominant. 2a. Seventh on supertonic. 3. Sevenths on mediant and sub-mediant. The seventh on the leading-note, consisting altogether of minor thirds, occupies a position of its own. At present we may call it 2b. Combining this classification with that of the major mode, we see that the dominant seventh is the same in both major and minor modes, that each seventh of the second class can come in three major and two minor keys, each seventh of the third class in two major and two minor keys, while the seventh on the leading-note in the major has the same intervals as the seventh on the supertonic in the minor. The use of these sevenths for the purpose of modulation will be apparent, if we remember that when the same chord is found in more than one key it can be followed by chords belonging to any of the keys in which the original chord can occur.

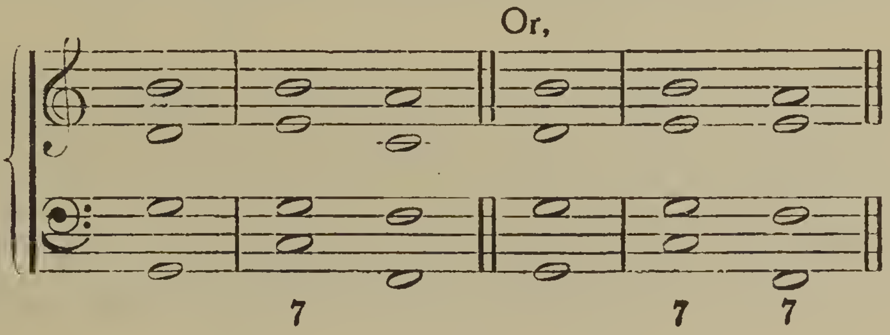
Secondary sevenths, both of the second and third classes, generally need preparation on account of their harsh effect. By preparation is meant the sounding of the dissonant note in the previous chord in the same part as the one in which it appears as a dissonance.

For example :—

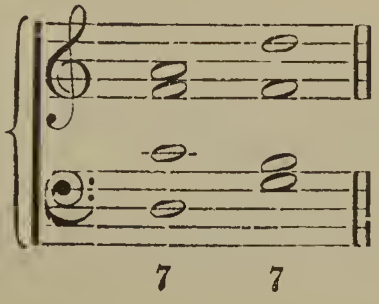


Here the dissonant note B in the second chord is sounded in the same part in the first chord. The effect of this preparation is to make the dissonant effect less harsh.

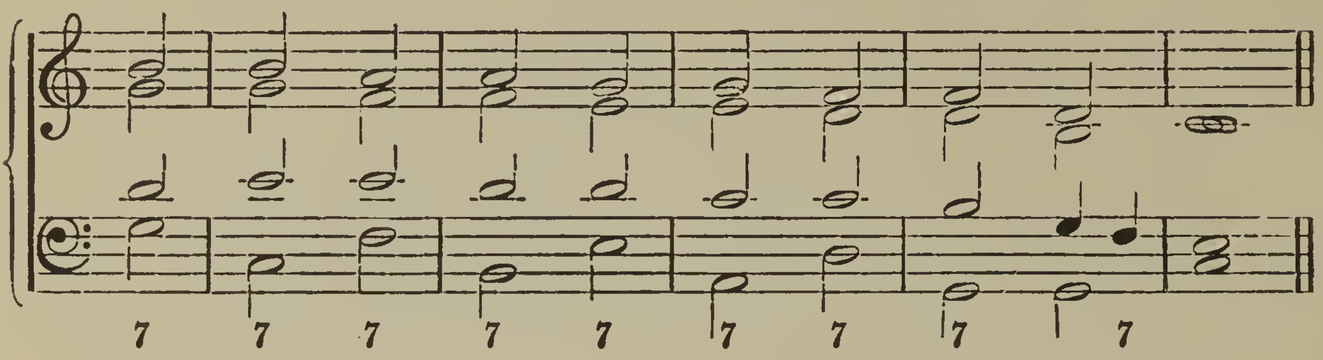
Secondary sevenths follow the same law of resolution as the dominant seventh—that is to say, the root will rise a fourth or fall a fifth, while the seventh falls a second. The third, not being the leading-note, is free in its movement. The chord of resolution can be either a common chord or another seventh.



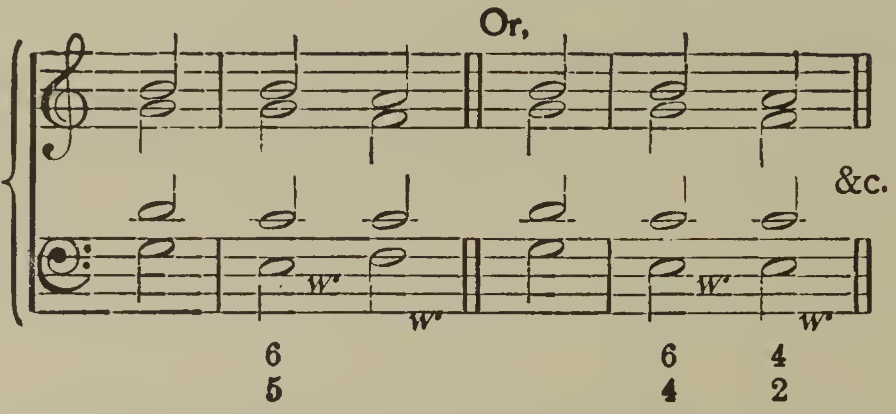
When two or more sevenths follow each other in their original positions, it is generally right to omit the fifth and double the root in every alternate seventh, in order to avoid consecutive fifths. These fifths, however, can be used, as the ear listening to the dissonant sevenths will not notice them to be disagreeable.



A succession of sevenths may follow each other and be carried on until the dominant seventh is reached.

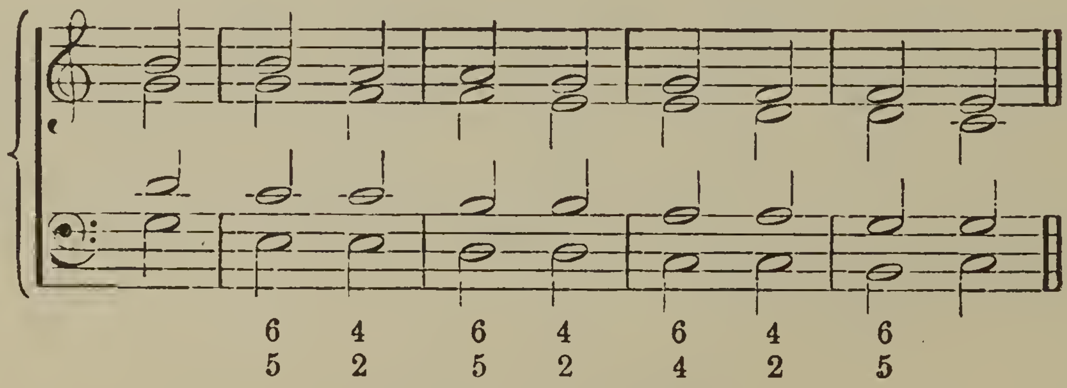


The inversions of secondary sevenths are figured like those of the dominant seventh. In the resolution the progressions are as in the original position—that is to say, the root of the chord of resolution will be a fourth above or a fifth below the root of the seventh.



Here, the root of the first chord being C, the root of the next chord must be F.

Successions of inversions of secondary sevenths can be used, but the second inversion is not effective as a rule.

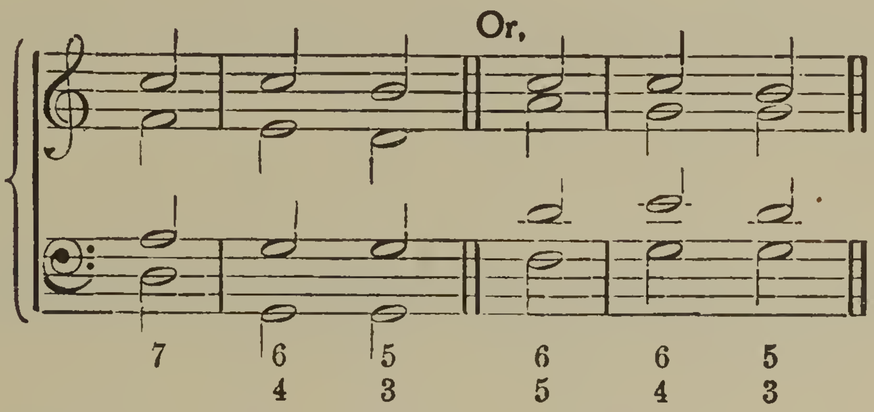


Progressions of this sort come under the head of sequences and should be treated as such.

Sevenths on the leading-notes in both the major and the minor modes are rarely treated as sevenths, but generally as ninths, under which head they will be explained in a later chapter.

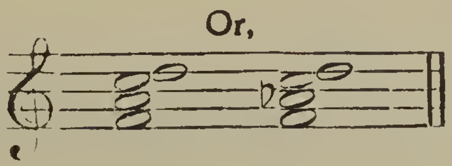
The chief use of secondary sevenths is to provide a dissonant effect when dissonance is required. They also can be used when common chords would not be good, the seventh serving as a connecting link between the two chords. Thus the seventh on the supertonic may be used after the tonic, as the key-note occurs in both chords and thus serves as a connecting link.

The seventh on the supertonic is the one most frequently used, coming as it does before the dominant or dominant seventh. It can also be taken before the $^6_4$ on the dominant; in which case the seventh remains in the resolution.



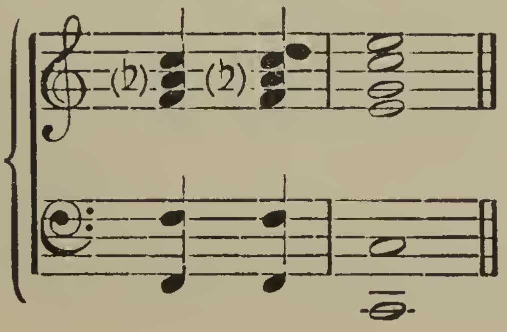
Exercise.—Play cadences in all keys, using before the cadential $^6_4$ the seventh on the supertonic or its first inversion.

The first inversion of this seventh on the supertonic frequently appears as a major or minor chord on the subdominant with a sixth added at the top.



In this position it is known as *the added sixth.*

It is frequently used in cadences which end with the third of the tonic chord in the treble.



This cadence is more effective in the major than in the minor key. It resembles the plagal cadence.[1]

Exercise.—Write and play cadences, using the added sixth in all major keys.

Fill up the following figured and unfigured basses and harmonise the melodies. Insert unessential notes wherever a good effect can be obtained. Analyse the harmony throughout.

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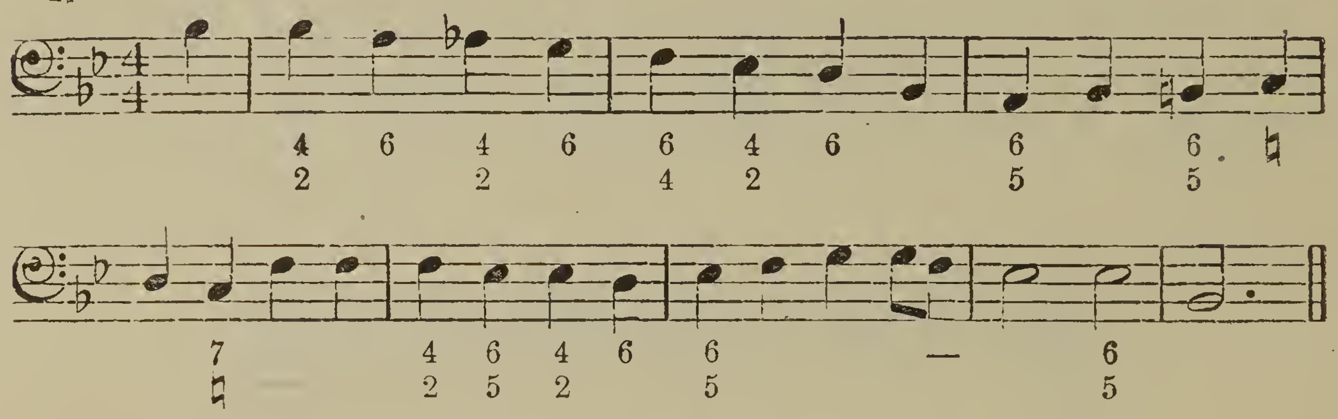

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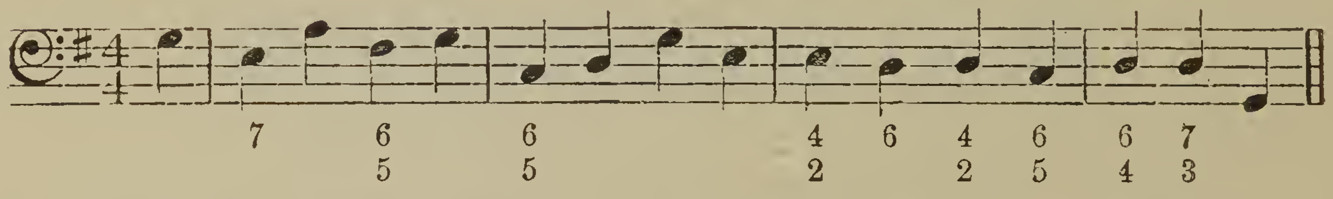

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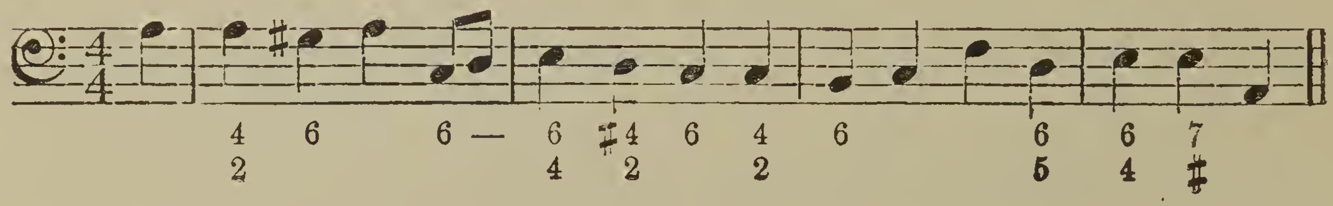
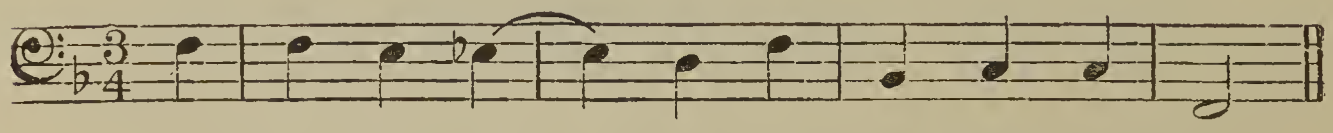


Unfigured Basses.

1.



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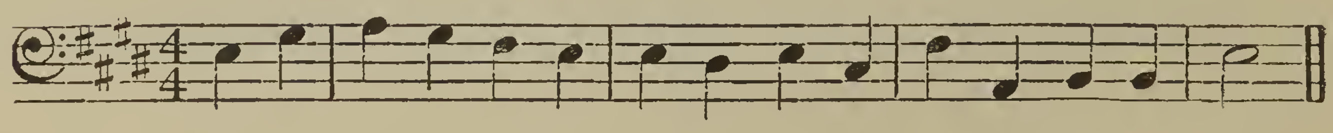

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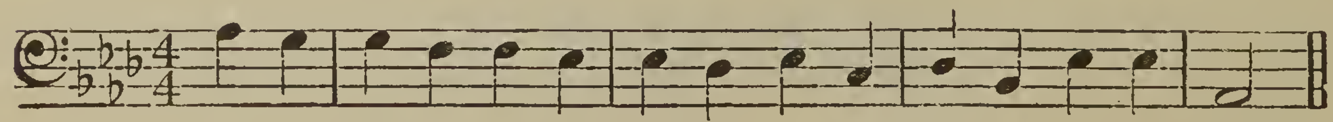

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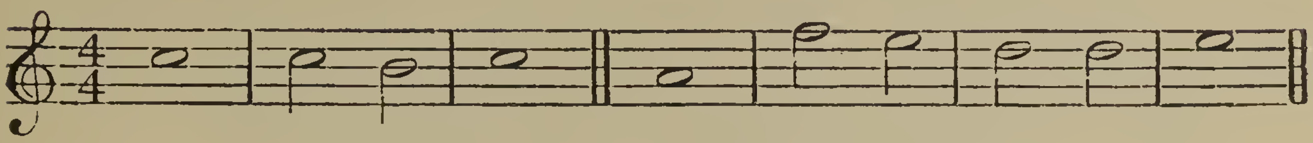
[1] The sixth may also be sharpened, but in this case the chord is usually written with a flat appearing as a seventh on the sub-dominant.

Melodies.

1.



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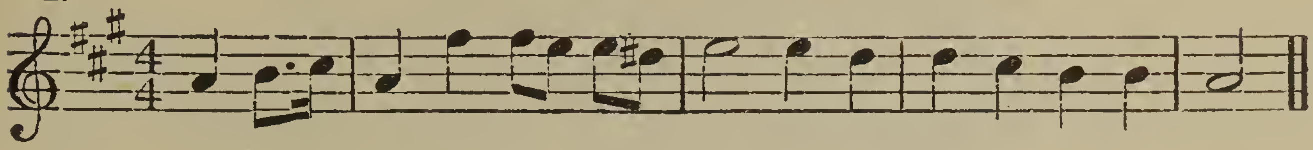

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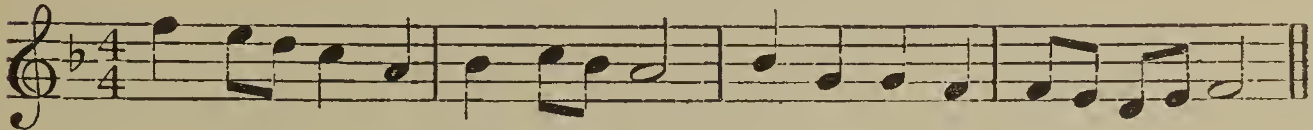

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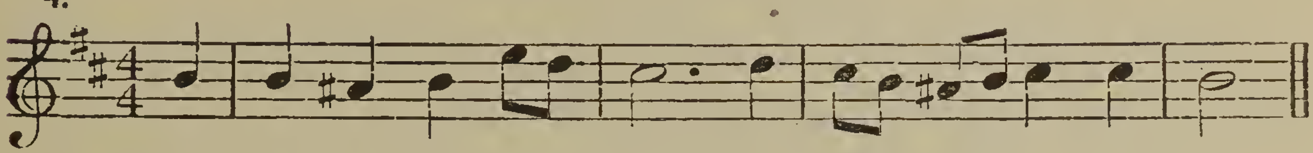
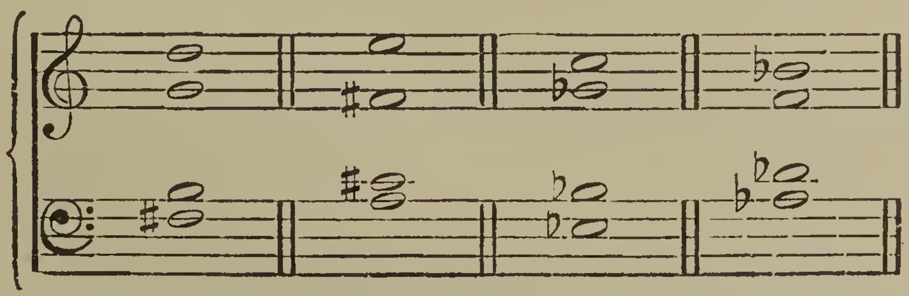


Write the following successions of chords, first simply and then with the addition of passing-notes, appoggiaturas, auxiliary notes, and suspensions.

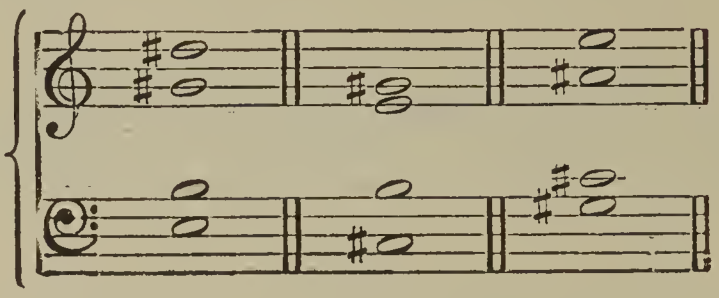
Key E flat. Tonic, first inversion seventh on supertonic, last inversion dominant seventh, first inversion tonic, second inversion dominant, first inversion seventh on sub-mediant (supertonic in B flat), seventh on supertonic in B flat, second inversion tonic in B flat, dominant in B flat, first inversion tonic in B flat, first inversion dominant seventh in E flat, tonic in E flat, first inversion seventh on supertonic, second inversion tonic, dominant seventh, sub-mediant, sub-dominant, added sixth, tonic.

Play and write successions of chords, introducing secondary sevenths and their inversions.

Resolve the following chords in different keys, keeping up a succession of inversions of sevenths till the dominant seventh is reached. Prepare the dissonant notes.



Show in what keys the following chords may occur, and write short passages introducing them in the various keys to which they belong.



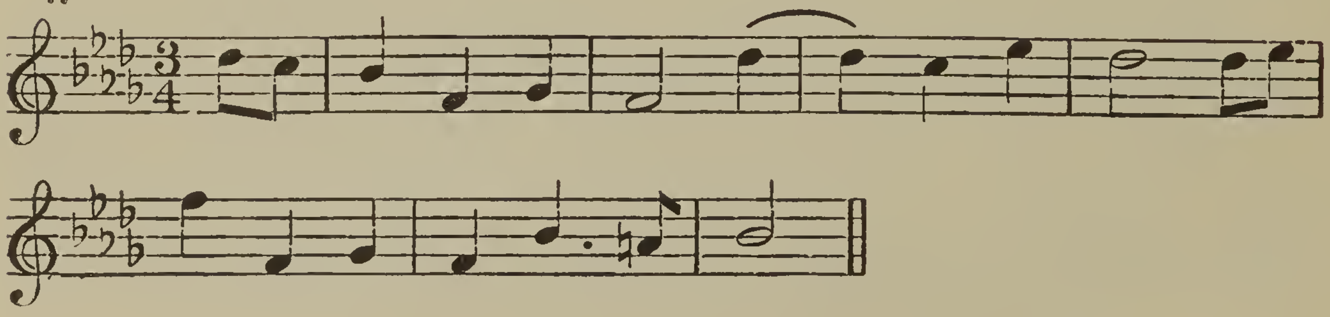
Additional Exercises.

Write the following successions of chords and then build up on them compositions in two sections.

Key A. Tonic, last inversion seventh on supertonic, first inversion dominant seventh, tonic, dominant seventh, sub-mediant, last inversion dominant seventh in B minor, first inversion tonic in B minor, dominant in F sharp minor, first inversion tonic in F sharp minor, seventh on supertonic in F sharp minor, second inversion tonic, dominant seventh, tonic in F sharp minor ; first inversion dominant in E, tonic in E, first inversion dominant in D, tonic in D, seventh on supertonic in A, second inversion dominant seventh, first inversion tonic, tonic, seventh on sub-mediant, supertonic, first inversion supertonic, second inversion tonic, dominant seventh, tonic.

Harmonise the following melodies :—

1.



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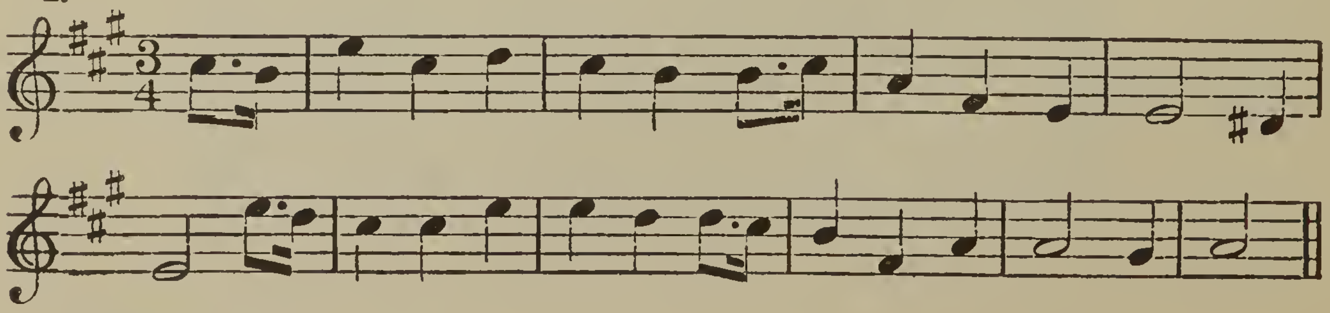
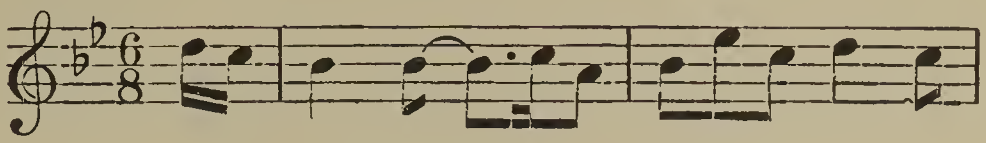


Harmonise and continue the following :—

1.



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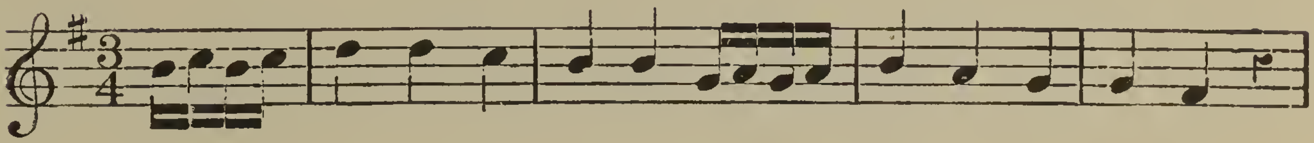

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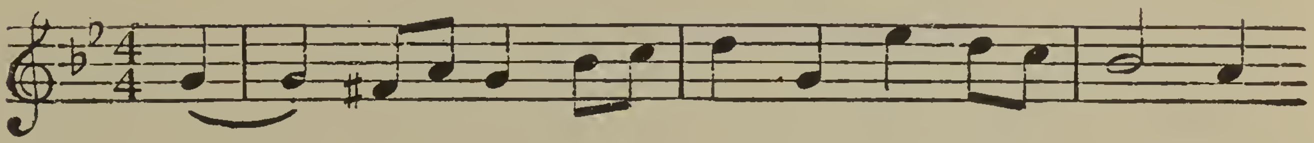

CHAPTER IX.

Construction in Music.

[*Note.*—This chapter is intended for the use of teachers. How much or how little of it should be given to pupils depends on the pupil. In every case he should be encouraged to write little things for himself, for the sense of beauty in him must be developed by making him endeavour to express his own feelings.

With many pupils the processes of synthesis (that is, of putting things together) and of analysis (that is, of dissecting things put together by other people) may go on together. With children analysis should be left to a later stage. But the teacher must thoroughly understand the principles on which musical composition is built, and so must be able to criticise and improve students' work.]

Hitherto we have been dealing with chords and progressions unrelated to their use in composition. But it must be insisted that the use of harmony is, not so much to recognise stray chords or even to know how they should be preceded and followed, as to understand their special uses in musical composition. Chords following each other in regular order will not make a composition; it is the idiom that is built on them that is important. It is, therefore, right that the student should be taught some of the elements of construction, and should accustom himself to use the material he has become acquainted with to build up little pieces of his own designing. By doing this he will insensibly begin to notice and appreciate the constructive design of the works he plays, and so gradually get into the heart of music. Harmony should not be a thing to be studied by itself, but should be a part of the general scheme of musical education.

Before going into details it may be as well to state as briefly as possible the general laws by means of which music makes its effect.

It is obvious that, if music is to make an appeal, it must fit in with the facts of our nature, otherwise it will be a strange language to us. The general principles of construction are therefore based on certain natural laws. Now it is a well-known fact that it is difficult, if not impossible, for the mind to attend to a rapid succession of varying ideas—there must be some connection between them, otherwise there is nothing but chaos. On the other hand the monotonous continuance or repetition of one idea will be equally distasteful.[1] Exact repetition and incoherence are alike disagreeable to us. From these facts it is easy to see that music, in order to make any appeal, must, on the one hand, not consist of a multitude of different ideas closely following each other without connection, nor, on the other hand, must the same idea be constantly repeated without variation. And so we arrive at the first law of construction—namely, that there must be reiteration, but that the reiteration must always be with variety. A musical tone varies in four ways—in time, pitch, force, or colour. In time it may be longer or shorter; in pitch, higher or lower; in force, louder or softer; and in colour it varies with the quality of the instrument—voice, piano, violin, &c. In the first two of these, there is a certain standard: in *time*, notes are divided into bars with a feeling of accent on the first beat of each bar; in pitch, we get our major and minor modes, giving us the standard of tonality. In both of these we get reiteration; in *time*, we reiterate the beats contained in the bar; in pitch, we reiterate the notes comprised in the scale of the key we are taking. And in both we get variety: in *time*, we use all the effects of syncopation and varying accent to relieve the monotony of strict time; and in pitch we use chromatic notes, or we modulate to different keys in order to give relief. There are no regular standards of force or colour, but we use repeated crescendos and diminuendos and we make our melodies rise in certain curves of rise and fall to obtain a feeling of reiteration, while the effects of colour have an influence on all the other constituents of our art. Thus we follow the facts of nature in our music.

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[1] See Stout, *Psychology*, pp. 289–90.

A second principle of construction can also be traced up to natural laws. It has been found by experiment that it is impossible for human beings to listen to sounds following each other in succession and not varying in pitch, intensity, quality, or duration, without dividing them into groups of two, three, four, or six.[1] Different people adopt different groupings ; to some people groups of four, to others groups of three, seem most natural, but some division there always is. This fact gives us our second principle of construction, which may be called *balance*—that is to say, there is generally some alternation of different divisions : an accented sound followed by one or two unaccented sounds, one phrase followed by another phrase, and so on.

Construction in music, therefore, is based mainly upon two things. 1. Reiteration. 2. Balance.

By reiteration is meant the repetition or development of some material of the music. Such repetition is a necessity, for it is impossible for the mind to grasp sounds that pass quickly unless there is some similarity in the scheme.

The following are some of the ways in which reiteration may take place. (*a*) A whole theme or a considerable part of a whole theme may be repeated. (*b*) The theme may be broken up into small units called figures, and these or any one or more of them may be repeated. (*c*) The harmonies used may recur. (*d*) The groupings of the notes, as for example, divisions of semiquavers, may be the same. (*e*) The general contour of the various phrases may resemble each other. (*f*) The themes or any part or parts of them may be imitated in different voices.

The principle of reiteration was one of the first to make an appearance in music. Primitive music was probably nothing more or less than the repetition of one figure. The following is a specimen of what actually is sung at the present time among the lowest tribes in Africa :—

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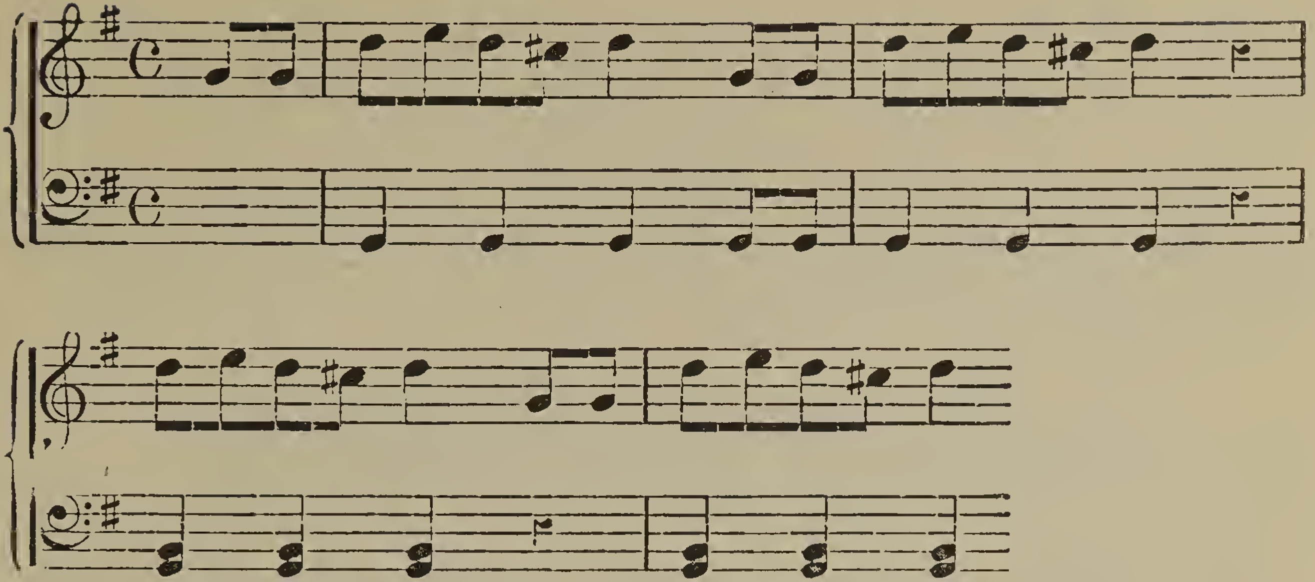
[1] Cf. *Scripture New Psychology*, pp. 178–9.

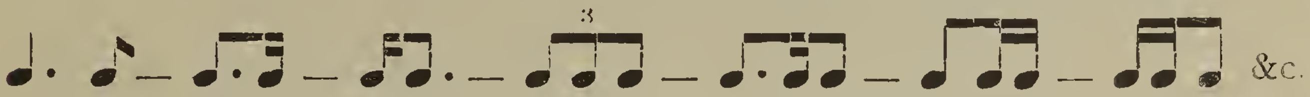


Here there is a constant repetition of one figure on the same tones.[1]

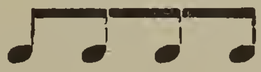
Figures are the smallest units into which music can be divided.

There are two classes of figures—(*a*) time-figures, (*b*) pitch-figures.

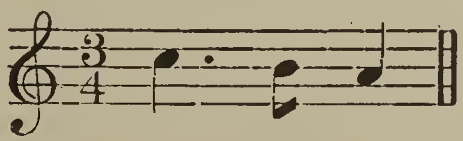
A time-figure consists of two or more notes grouped together so as to give a definite time impression to the hearer. For example, any of the following can be used :—



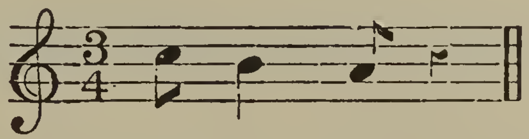
In the example of savage music first given, the figure is



Time-figures are strict when they follow the normal accent, free when they contradict the accent.

Thus 

is a strict figure because the normal accent is retained.

But 

is free, because there is an effect of syncopation.

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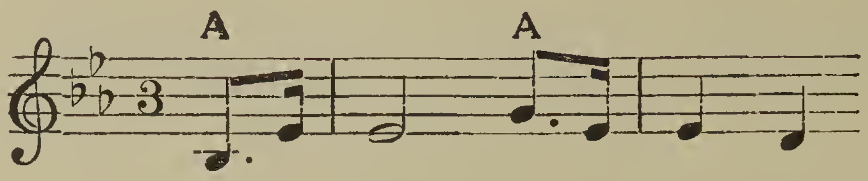
[1] The bass represents a drum-beat.

Time-figures can be repeated on any notes: whatever sounds are used the time repetition will make itself felt. They can also come on different beats.

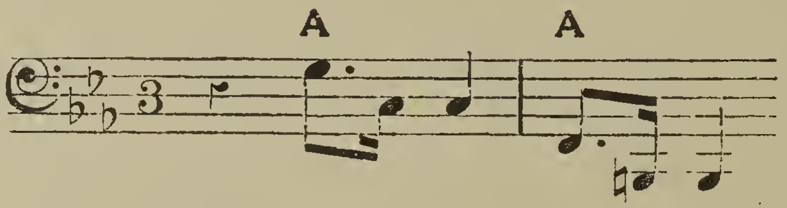
When a time-figure always recurs on the same beat, its treatment is called strict. When it comes on different beats its treatment is free.

Thus



is strict because the figure marked A recurs in both cases on the third beat.

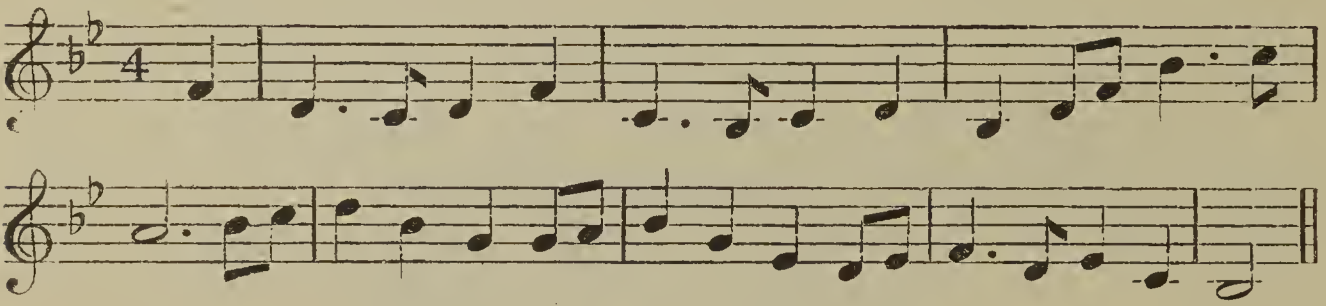
But

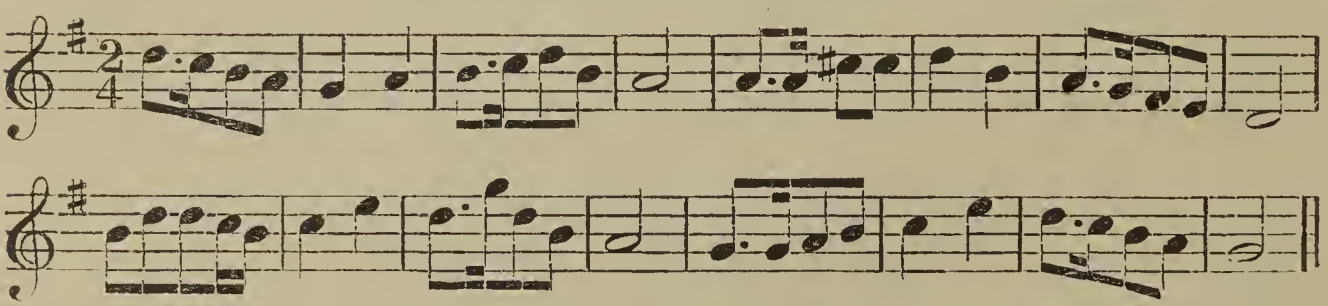


is free because the figure marked A comes the first time on the second beat, afterwards on the first beat.

The treatment of a time-figure serves to give coherence to a piece of music, and is called *time-idiom*.

Exercise.—Point out the principal time-figures in the following. Describe them as strict or free, and say if their treatment is strict or free.



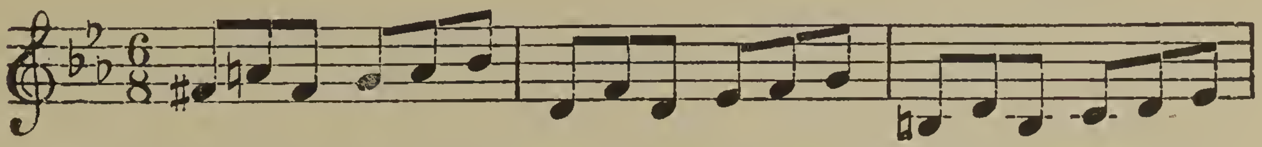


A pitch-figure is one that depends, not on the duration, but on the order of the notes in pitch.

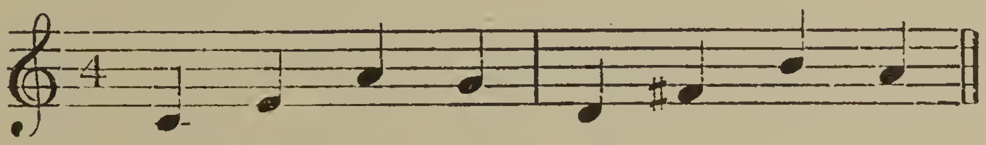
In this case there will be nothing in the time outline to attract attention, but the ear will recognise the same sequence of notes.

Pitch-figures usually appear in what are called sequences.

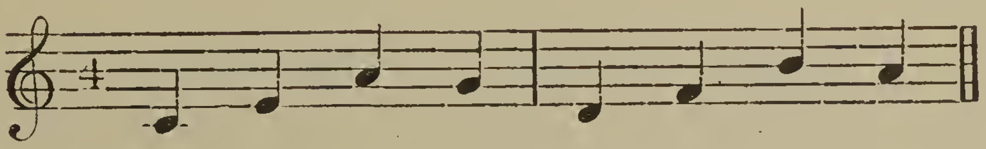
A sequence is the repetition of a phrase or of a series of chords beginning on a different note.



A real sequence is when the intervals are exactly repeated. In a tonal sequence the imitation is not exact—e.g. a major third answered by a minor third preserving the tonality of the key. Thus :—



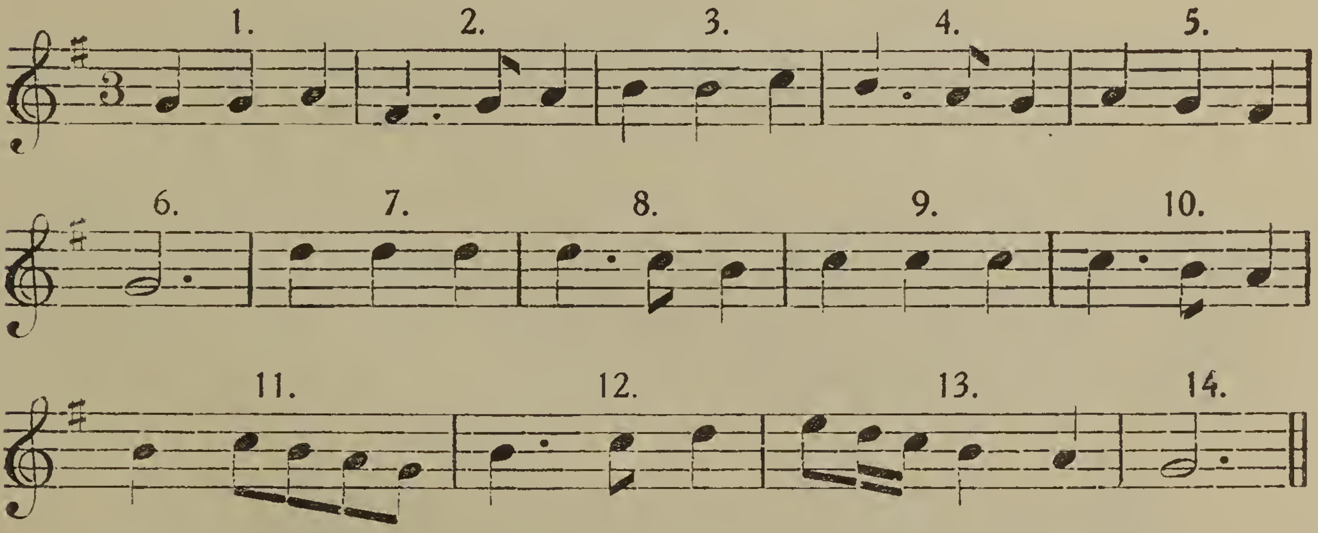
is a real sequence, but



is a tonal sequence, because the perfect fourth, which occurs on the second and third notes of the first bar, is answered by an augmented fourth.

Pitch-figures, therefore, rely on the repetition of the same intervals. There may, however, be variety in pitch-figures, but not such variety as would cause the figure to be unrecognisable.

The following melody will show the use of time and pitch-figures :—



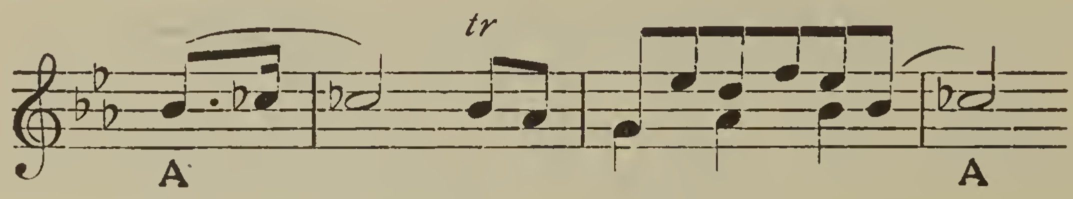
In bar one there is a pitch-figure, which is exactly repeated a third higher in bar three. In bar two there is a time-figure, which reappears in bars four, eight, ten, and twelve.

Again, bars seven and eight, nine and ten, give us a sequence.

It must be noted that no melody consists altogether of figures. There must be other material, which serves to throw into prominence the principal figures and provides cadences &c.

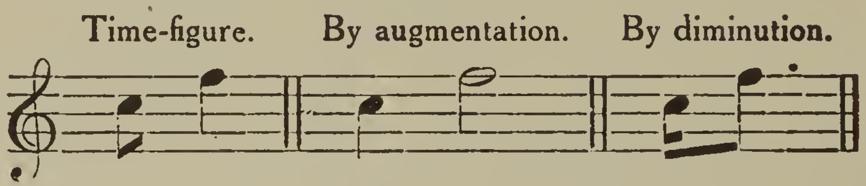
The number of figures to be employed depends largely on the length of the melody and the treatment of the figures. If the figure is treated with freedom it will bear more elaboration than if it were always repeated in the same way.

It must also be noticed that a time-figure may be repeated from the pitch side—that is to say, a figure which originally depended on duration of the notes may be repeated with this duration altered but the pitch order kept. Thus in the following example the same notes are repeated but the time-figure is left out.

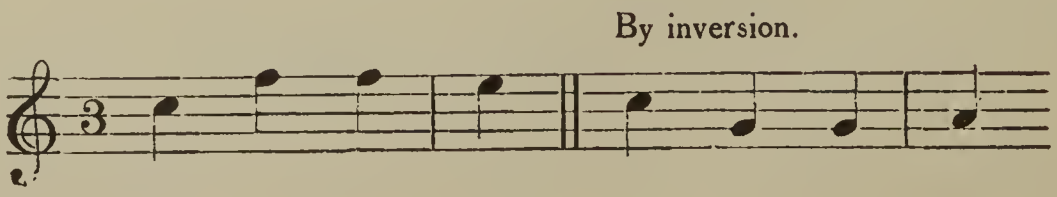


Similarly, a figure which originally depended on the pitch of the notes may be developed with a time-figure added to it.

Moreover, both time- and pitch-figures may be treated in augmentation—that is, written in notes twice the length of those in the original passage; or in diminution—that is, notes half the length; or they may be varied by the addition of more notes—that is to say, by ornamentation.



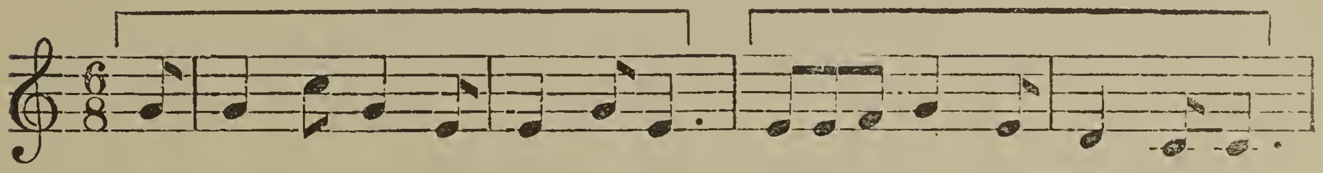
A pitch-figure may also be treated by inversion—that is, when the notes proceed by the same intervals, as in the original passage, but move in the opposite direction—e.g. instead of going up a fourth, going down a fourth.



The second principle in musical construction is *balance*. As has been previously stated, it has been found by experiment that it is impossible for human beings to listen to sounds following each other in succession and not varying either in pitch, intensity, quality, or duration, without dividing them into groups of two, three, four, or six. Different people adopt different groupings : to some persons groups of four, to others groups of three, seem most natural, but there always is some such division.

This fact shows that the feeling for balance is always present in the mind, and causes the division of tones into bars and then the division of accents into phrases.

This balance is found in very primitive music, and gives us what is called *phrase-form*—that is, the division of accents into phrases.

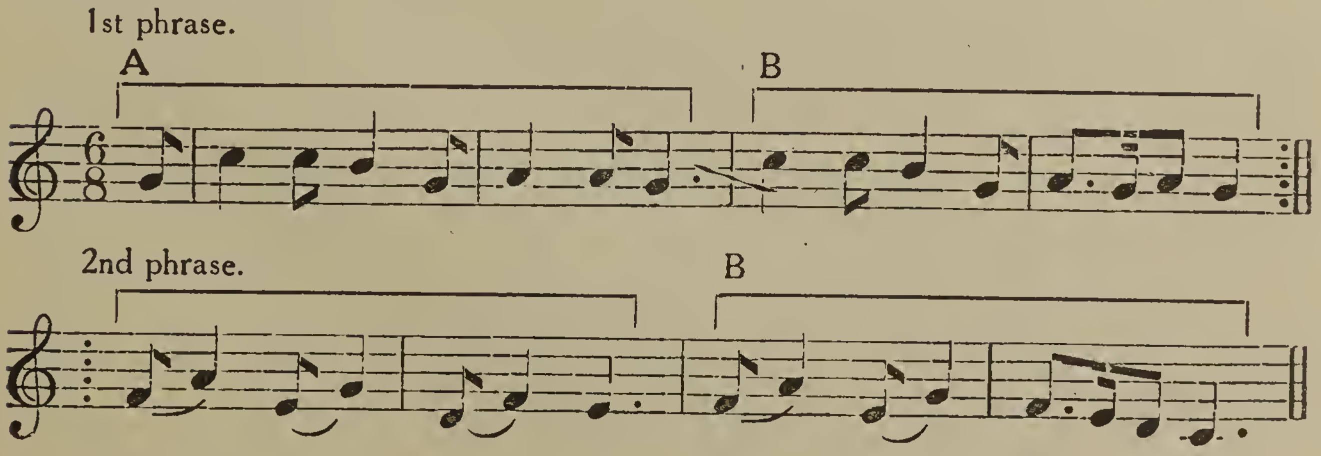


In this little tune there are two phrases, each containing two strong accents. Two-bar phrases would, it is certain, be the most common in early music; but, as the art grew, phrases containing a larger number of accents would naturally come into use.

The combination of two phrases, when there is a close at the end, is called a stanza. Other names instead of stanza are sentence, period.

The phrases themselves may or may not be divided into smaller divisions called phrase-sections.

Thus in the following tune, which makes a complete stanza, there are two phrases, each of which is divided into two phrase-sections.



As a general rule the last tone in a phrase or stanza should come on the first beat in a bar, as this beat is the most strongly accented, but this rule is not invariably adhered to by the great masters. As the phrase divisions are not always made exactly in the same places, it frequently happens that one phrase ends on the third beat of a bar, in common time, while the corresponding phrase ends on the first beat. By this means we get a shifting accent—a device which is largely used in movements founded on free-dance forms. Again, what is called the feminine ending is not uncommon. This occurs when the end comes on the second beat, the first beat being generally a suspension or a harmony note belonging to the same chord as the second beat.

The two fundamental principles of musical construction are, then, Reiteration and Balance. But it must be insisted that these two principles must be used with what may be called the 'Law of Variety.' It is a fact that while constant change will only produce a feeling of vagueness and unrest, exact repetitions will soon become monotonous. It is difficult if not impossible, for the mind to attend for long to one object, unless different points of view are taken. And so, in music, though reiteration is necessary, it must not be exact reiteration. There must, therefore, be freedom in the use of figure, or freedom in the time-outline, or freedom in the phrase-form, or freedom in respect of the pitch-outline, and the larger the composition the greater the freedom required.

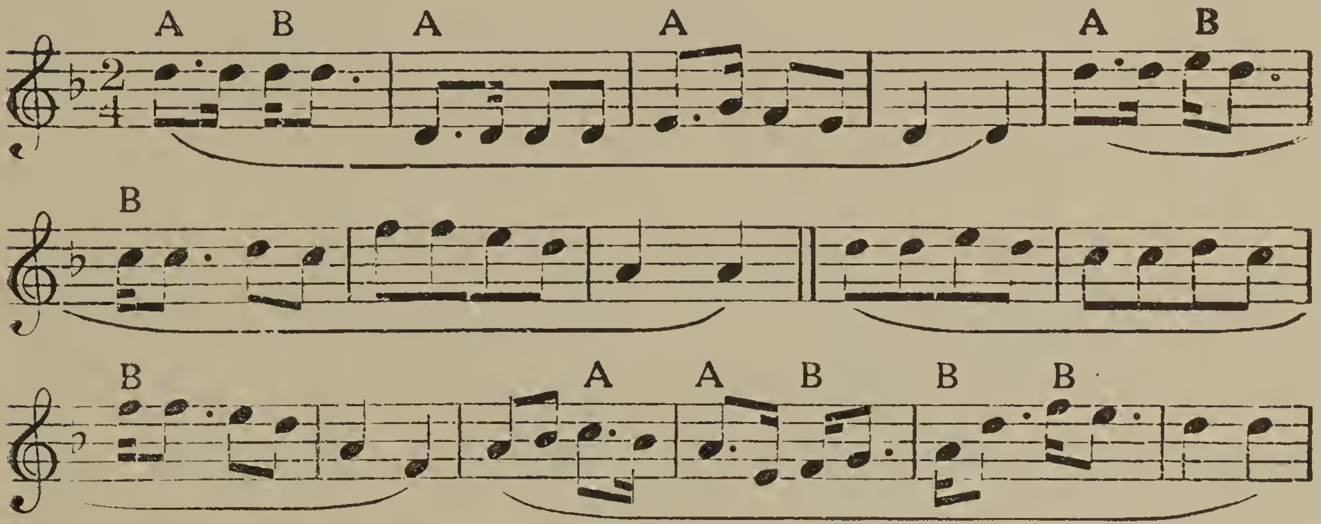
It will generally be found that in compositions of merit one or more of these varieties will prevail. If the phrase-form is stiff, there will be variety of accent; if the figure treatment is strict, the phrase-form will be irregular.

The following are some of the ways in which the strict standard may be varied. (*a*) The accent may be varied by syncopation or unequal divisions of notes. (*b*) The figure idiom may be varied by making the various figures recur on different beats, or by variations in the figures themselves, by the use of augmentation, diminution, or the insertion of ornamentations. (*c*) The phrases may be of unequal lengths. (*d*) The accent may be a shifting one, so that the strongest accent will sometimes fall on different beats.

Progress in art is from the strict to the free. It will, therefore, generally be found that more and more variety creeps in as time progresses. In old folk-songs, however, there is often great variety of treatment, the reason being the intimate connection of music with dancing which caused attention to be given to the rhythmic side of art. When strong rhythmic feeling exists, stiffness is an impossibility.

As time went on, the treatment, both of the phrase and of the figure, became more free, until we get perfect examples of form on a small scale. The use of the time-figure is varied with the use of the pitch-figure, and the same idea is treated from different points of view.

The following is a Hungarian melody :—



Here the phrase form is strict, each phrase containing the same number of accents. There is, however, considerable variety in the figure treatment. There are two figures, marked A and B. Both appear in the first bar, but only A in the second bar. In the third bar A also is used. The first bar in the second phrase resembles the first bar in the first phrase, but with a pitch difference (E for D). The third phrase has, with the exception of the last note, exactly the same notes as the second phrase, but with the time-figures in the first two bars taken out. On the other hand, in the third bar of the phrase time-figure, B is added. The fourth phrase has different pitch notes, but a repetition of the two time-figures.

This little melody is an excellent example of the principles given on page 98. There must be reiteration, but the best music is obtained when the reiteration takes place with variety. Variety is obtained either by a free treatment of the figures on which the melody is built or by free phrase-form.

As a general rule it will be found that either one or the other is present in good music. The phrase-form is free more particularly when the effect sought to be gained is *rhythmic*, and thus we find in many folk-songs unequal phrase division.

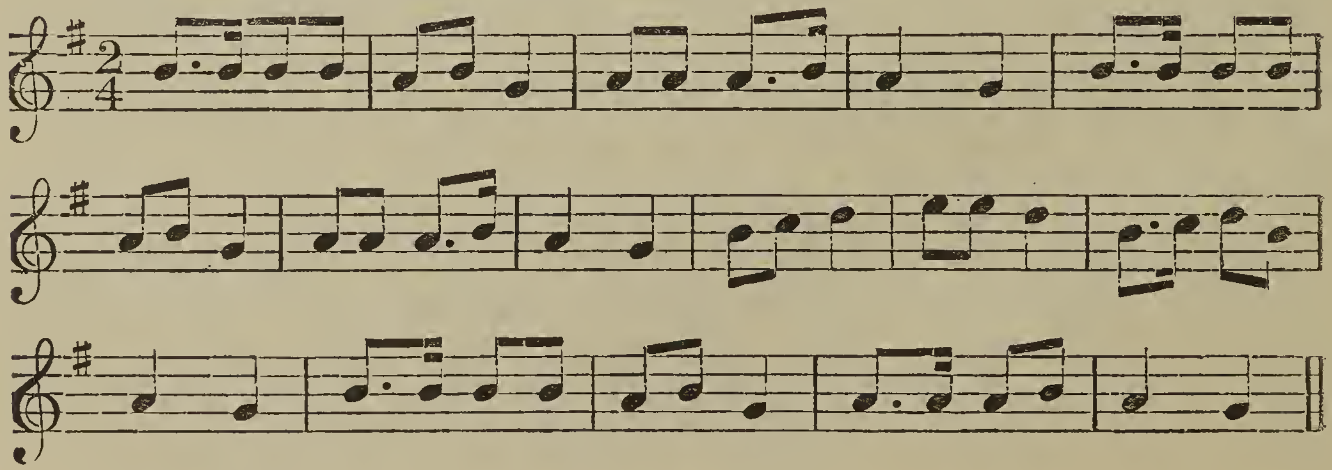
In classical music, four-bar phrases are by far the most common at the beginning of the piece, and this is natural, for they are the most easily understood; but three-bar phrases are frequently found, and where rhythmic variety is sought, phrases of five bars make their appearance.

It is not necessary to have phrases of exactly equal duration, the balance is often free. As a general rule compositions *begin* strictly, but continue with free divisions. Three-bar phrases are very common in Hungarian music. In classical music an excellent example of three-bar phrase-form can be seen in Mozart's 'Deh vieni, non tardar' from 'Figaro.'

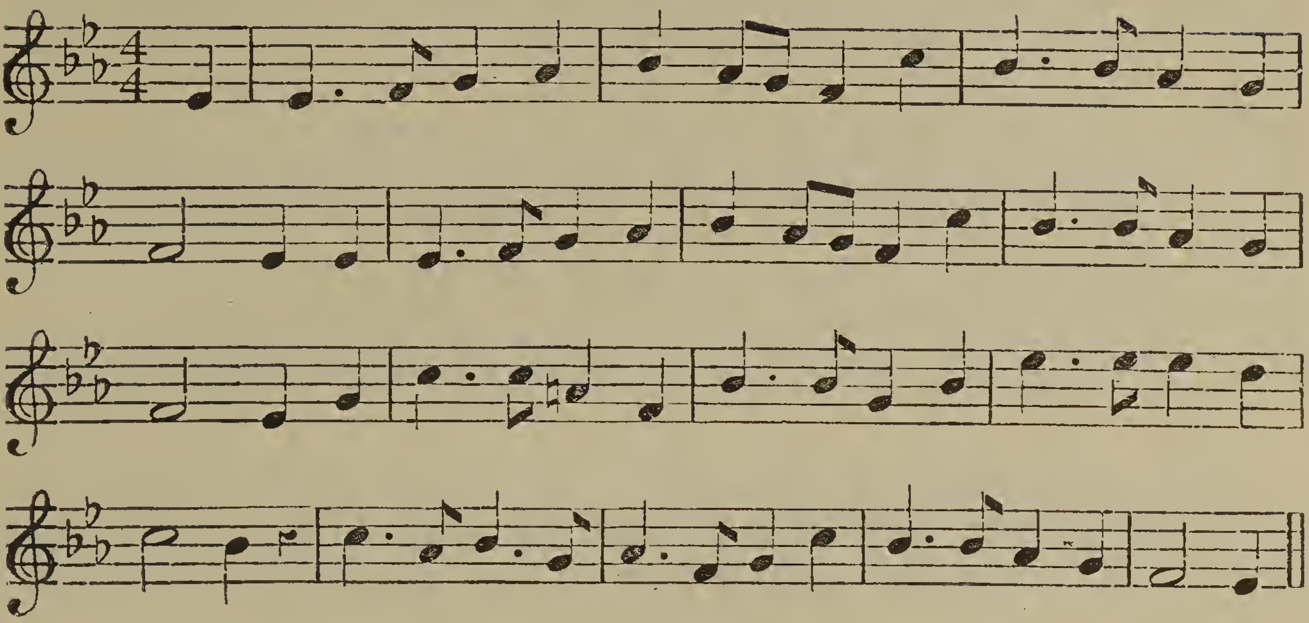
The student should now write melodies founded on different figures and written in various kinds of phrase-form. He should indicate the harmony he wishes, and always insert the cadences he considers most suitable. The first melodies attempted should be simply written: afterwards more elaborate tunes may be composed. The effect should be carefully observed, and the cause of any feeling, either of monotony or of vagueness, noted. At the same time the student should analyse different melodies, observing the figure treatment and the phrase-form and noticing the effect.

Exercise.—Analyse the following tunes. Begin by dividing the stanza into phrases and phrase-sections. Then point out the principal figures, describe them, and show how they are treated.

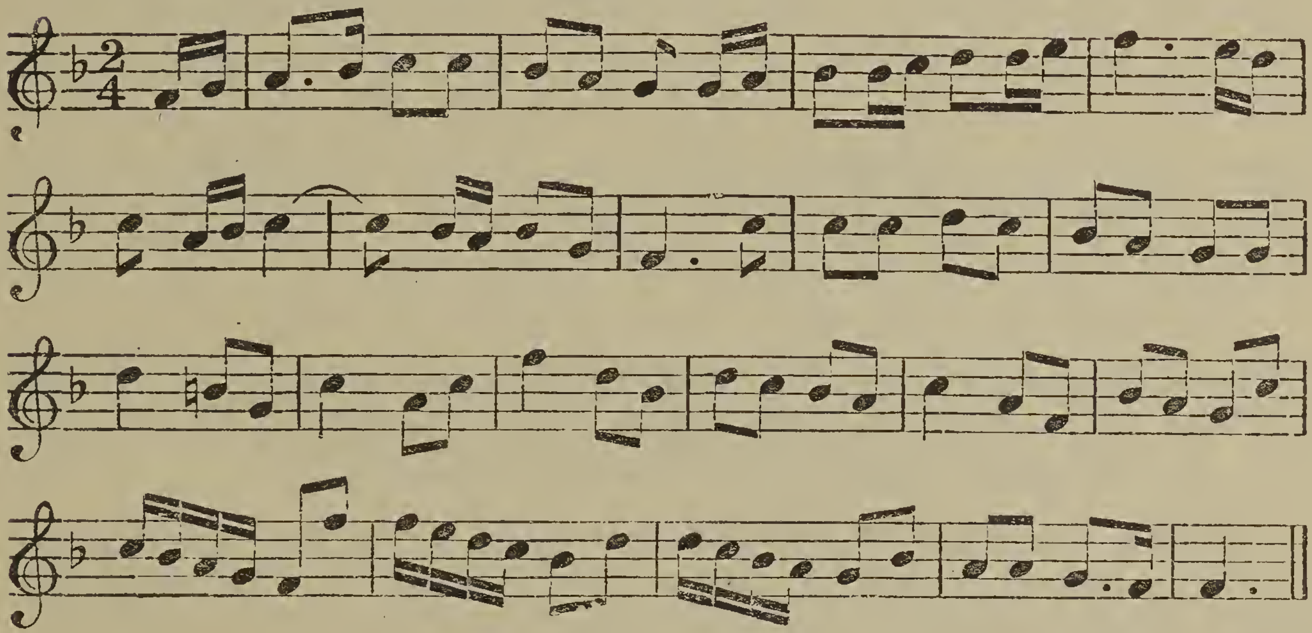
'Once I loved a Maiden Fair.'



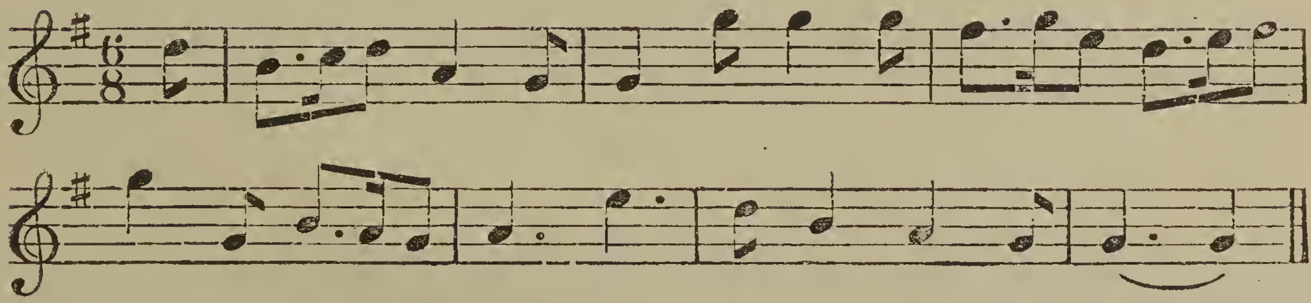
'Since first I saw your face.'



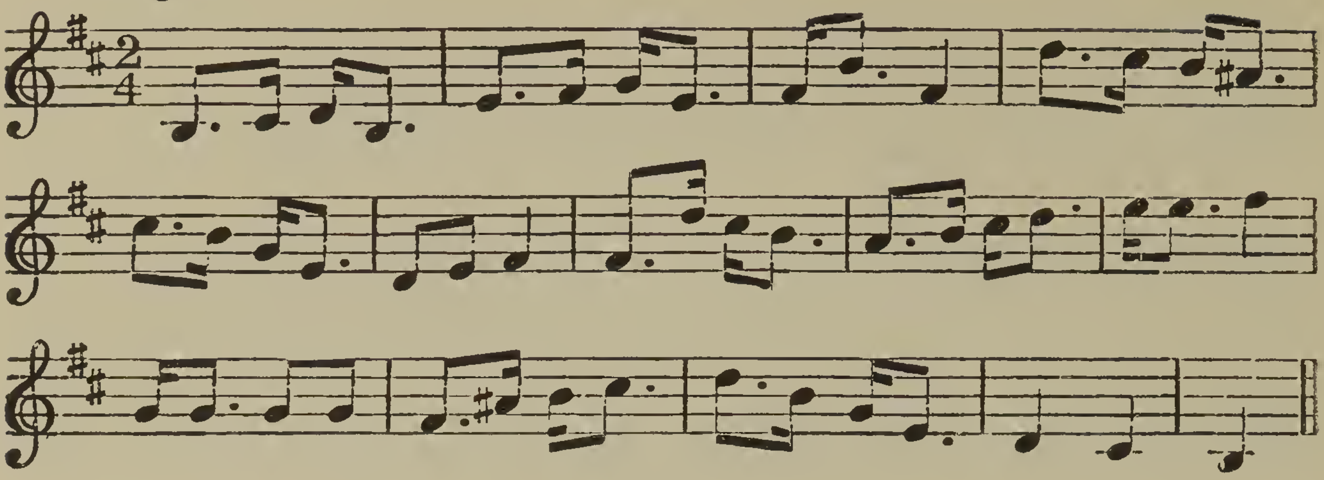
'It was a Lover and his Lass.'



'The Wish.'



Hungarian.



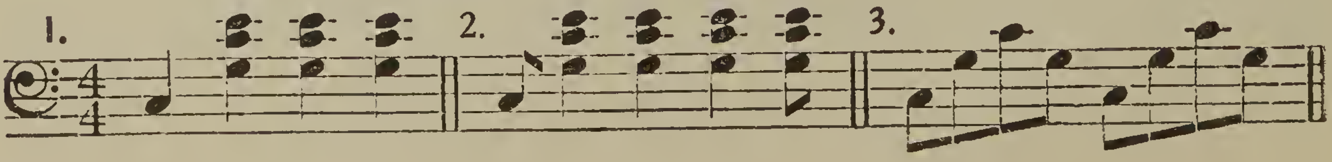
The foregoing principles of construction should be mastered by the student, so that he may be able to utilise them in his own work. In filling up the figured and unfigured basses given in the rest of this book, he should first simply write the chords ; after that he should endeavour, by the aid of passing notes, suspensions, appoggiaturas, and auxiliary notes, to build up a melody on the harmonic basis that the figuring shows, or that he considers the most suitable when the bass is not figured. It will, therefore, be possible to work every exercise in several different ways. At the same time every progression should be played and transposed into different keys and the effect carefully noted.

When there is a sequence in the bass, it is best to give the other parts sequences. In this case the skip of an augmented interval or the doubling of a bad note may be allowed, provided they do not come at the beginning of the sequence.

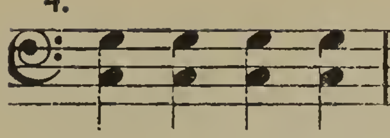
Before the work of filling up the bass is begun, the student should mark the phrases and note the cadences that are to be used. He should also analyse the chords and determine the best position of each chord, both from a melodic and a harmonic point of view.

When the bass is expressly stated to be for the piano, a figure of accompaniment may be used of which the following are specimens :—

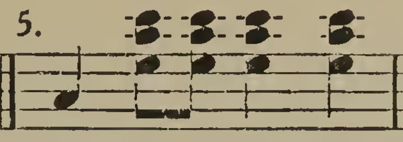
Accompaniment figure.



4.



5.



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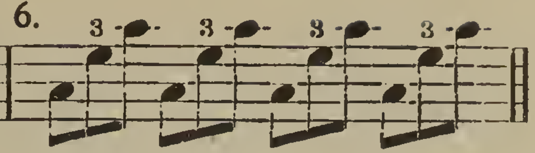

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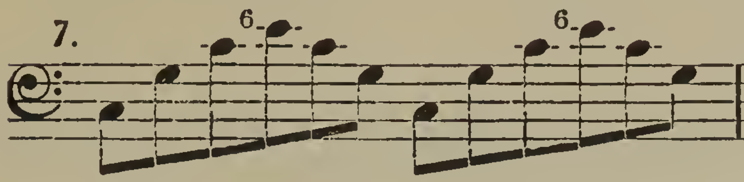

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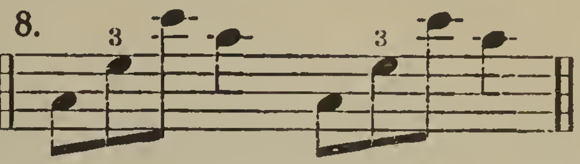
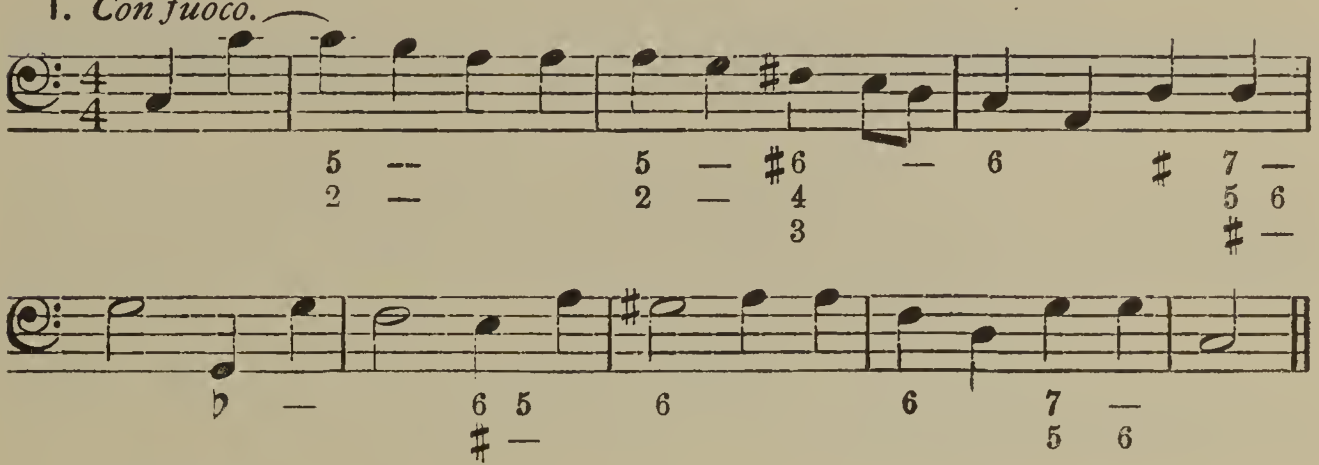
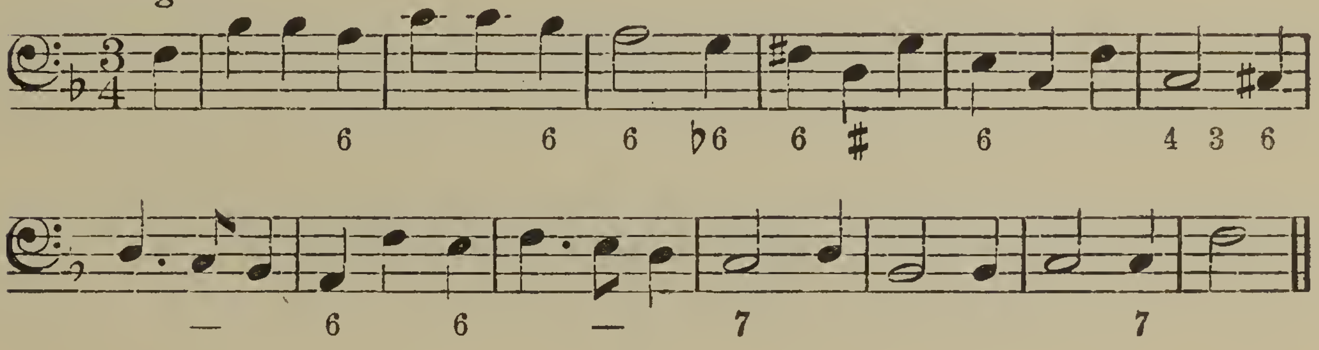


When only one note is given in the bass which does not last throughout the bar, it is intended that the bar should be filled up by using some such figure as No. 1 in the previous examples.

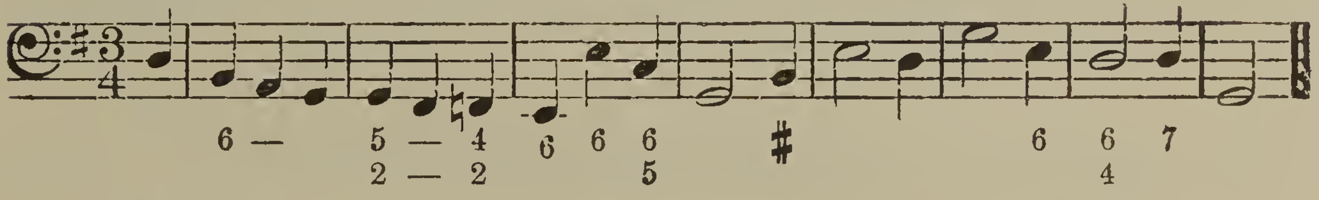
1. *Con fuoco.*



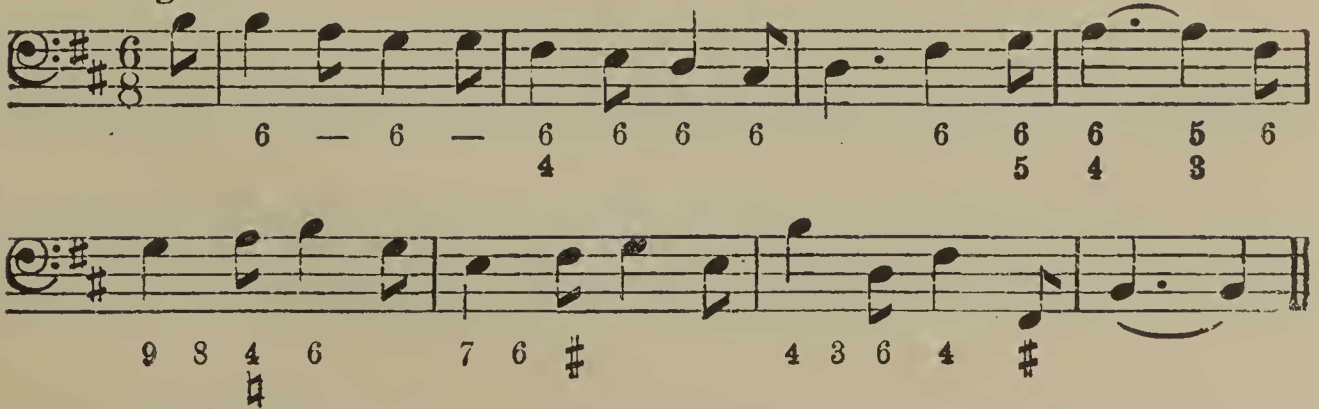
2. *Allegretto.*



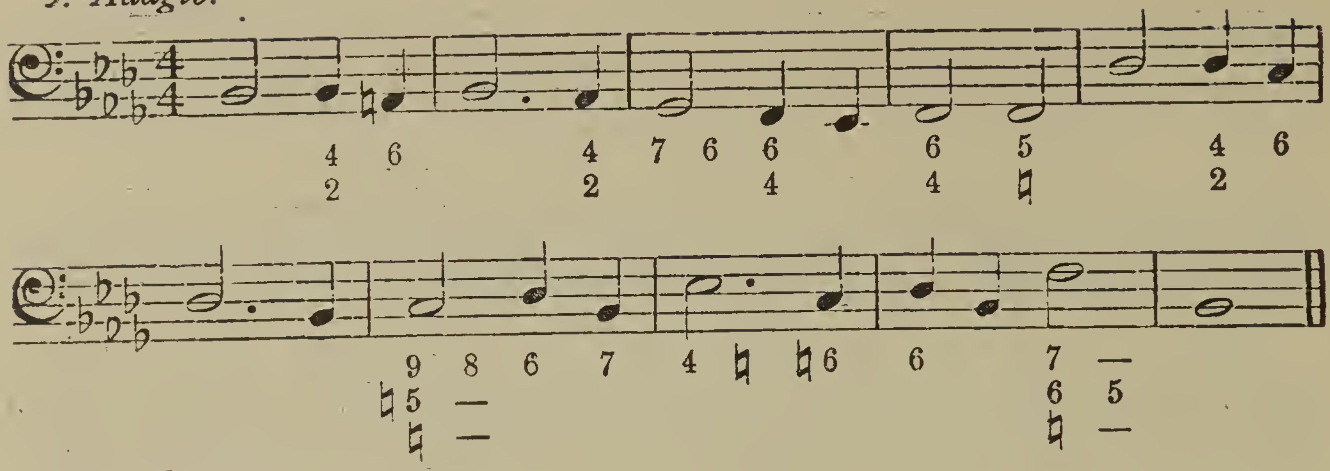
3. *Andante.*



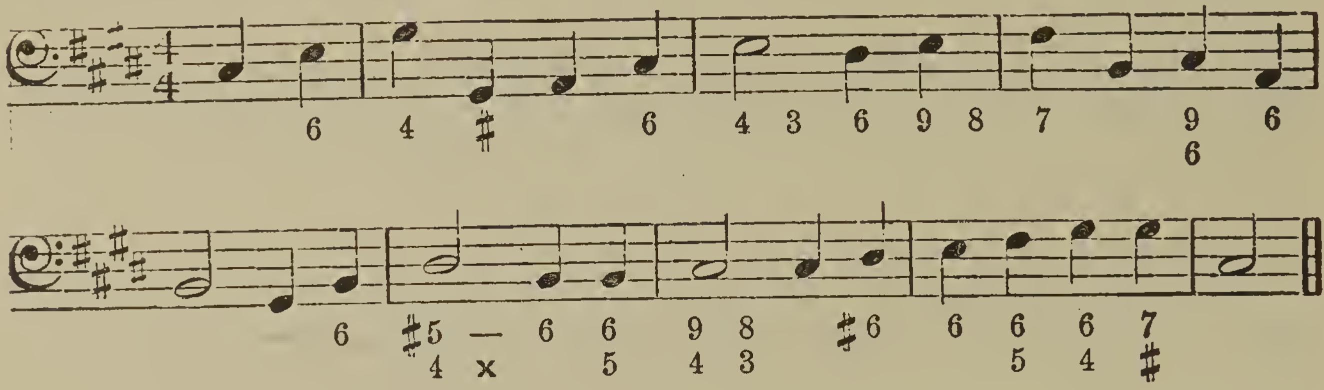
4. *Allegretto.*



5. *Adagio.*

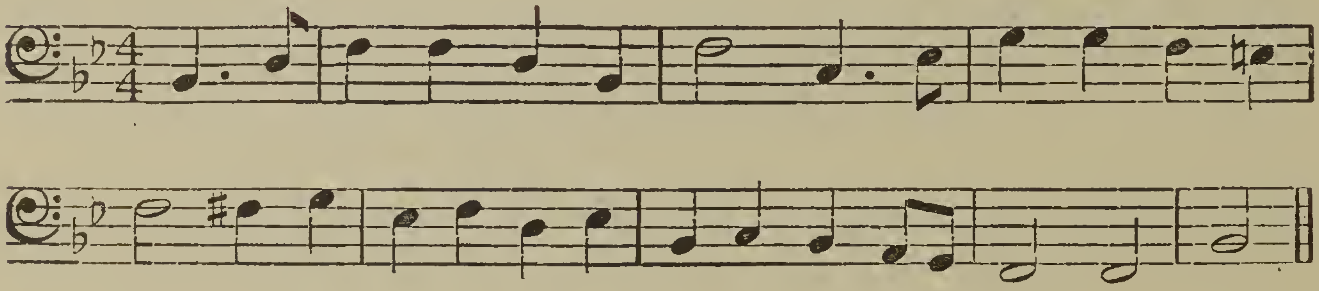


6. *Andante.*

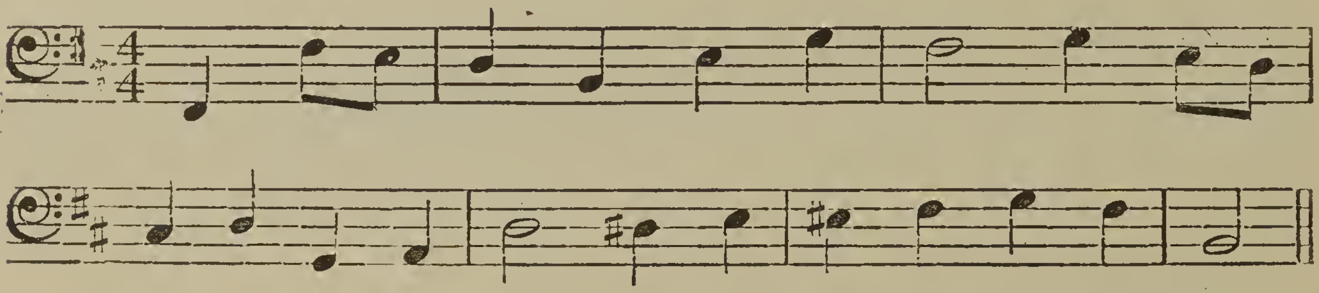


Unfigured Basses.

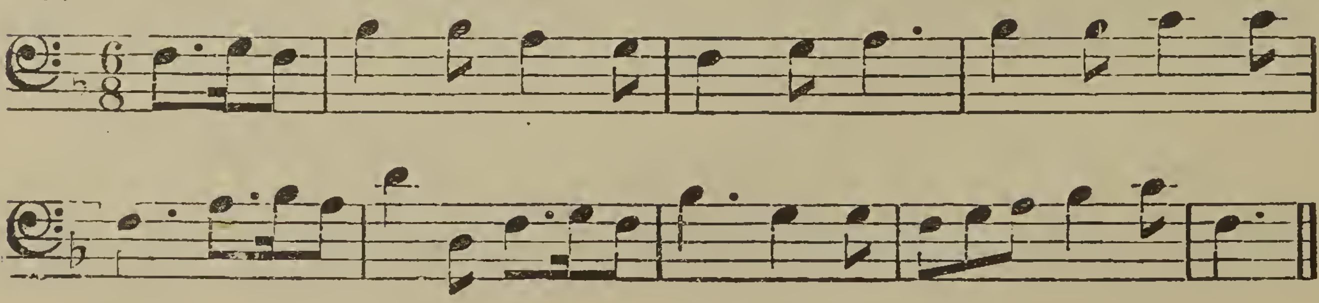
1.



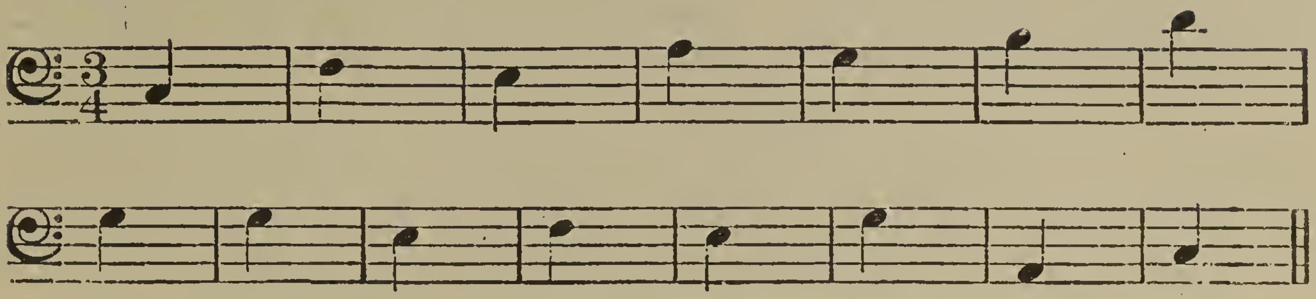
2.



3.



For the Piano.



Melodies.

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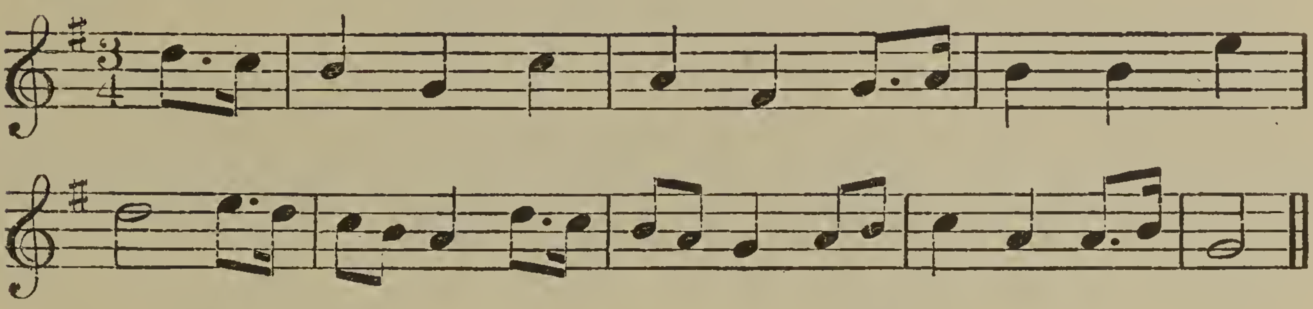

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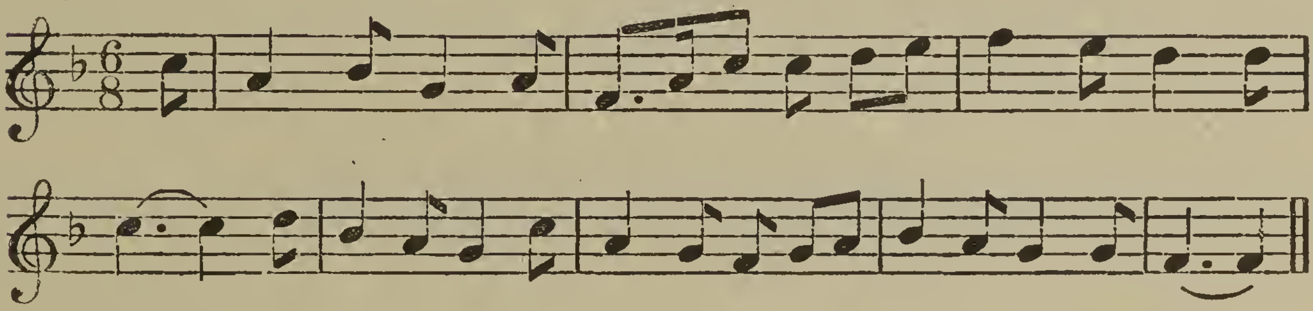
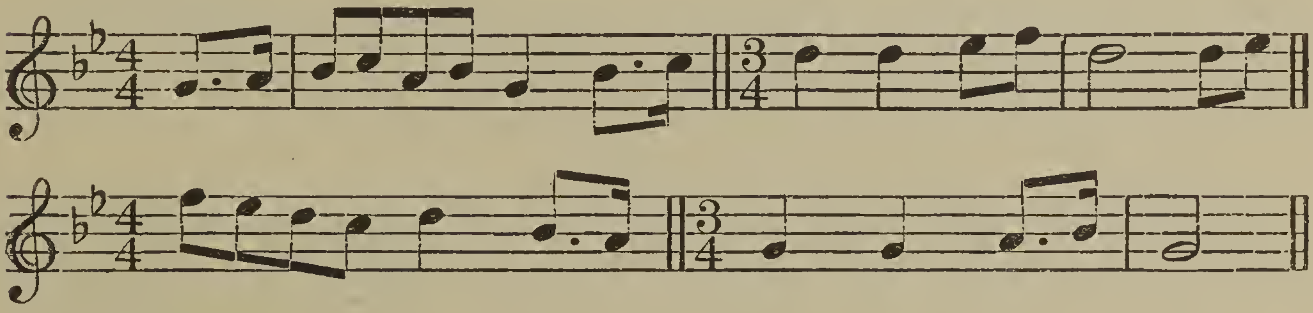
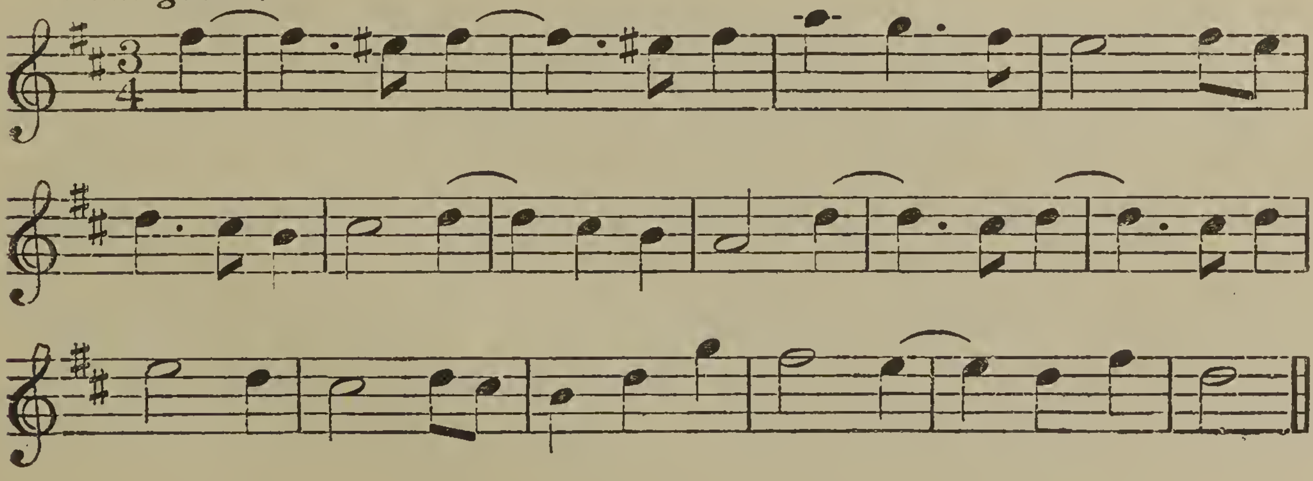


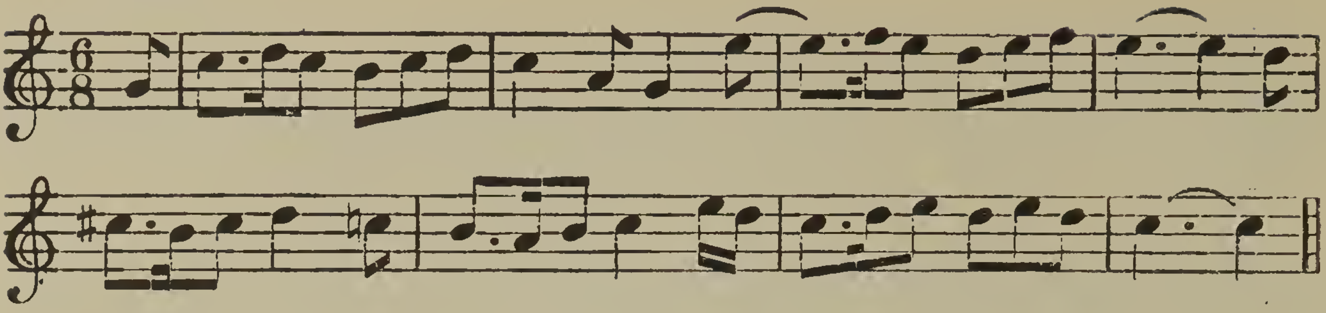
3. *Andante.*



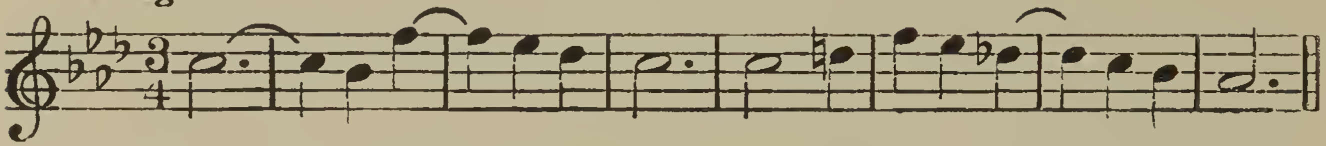
4. *Allegretto.*



5. *Vivace.*

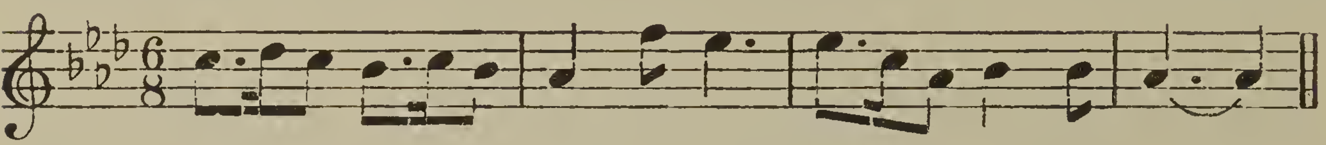


6. *Adagio.*

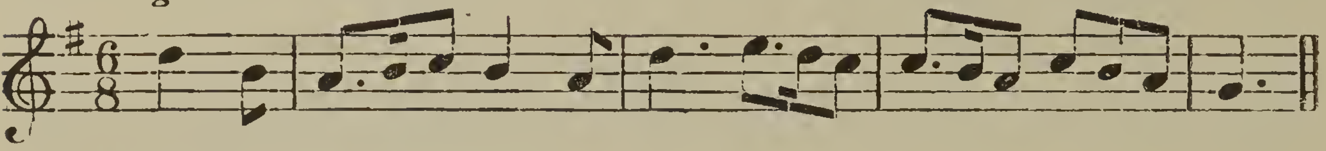


To be harmonised at sight at the piano.

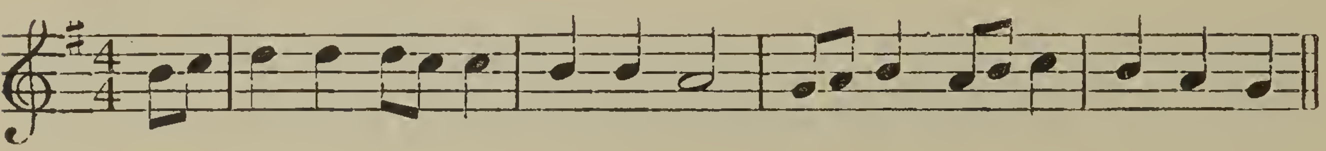
1. *Moderato.*



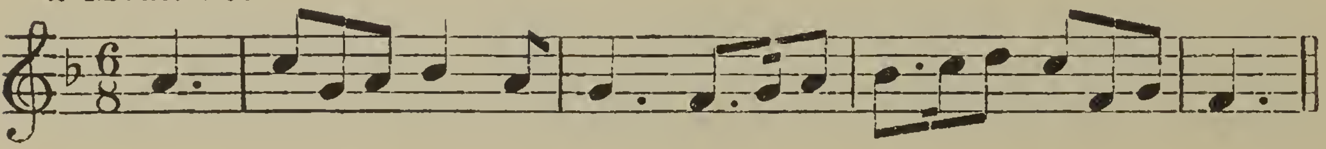
2. *Allegretto.*



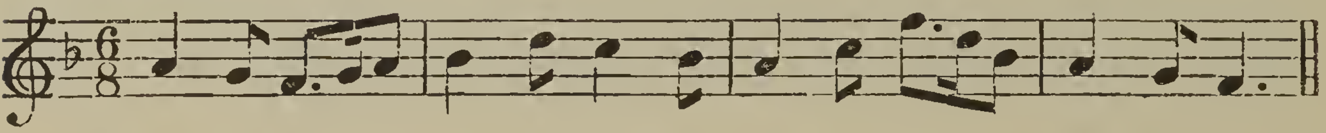
3. *Andante.*



4. *Moderato.*



5. *Moderato.*



Write the following chords, and on them build up short compositions. Any chord may be repeated. Key A flat. Tonic, first inversion tonic, last inversion dominant seventh, first inversion tonic, supertonic, first inversion supertonic, last inversion dominant seventh of B flat minor, first inversion tonic in B flat minor, dominant in A flat, sub-mediant, first inversion dominant in E flat, tonic in E flat, first inversion seventh on supertonic in E flat, dominant seventh and tonic in E flat; E flat minor chord, first inversion E flat minor, last inversion dominant seventh in D flat, first inversion tonic in D flat, second inversion tonic in C minor, dominant seventh in C minor, sub-mediant in C minor, second inversion dominant seventh in F minor, first inversion tonic in F minor, first inversion sub-dominant in A flat, first inversion seventh on supertonic, second inversion tonic, dominant seventh, tonic.

Additional Exercises.

The following successions of chords are taken from the works of great composers. The student should build up compositions of his own on them, and afterwards refer to the works from which they are taken.

1. Key A flat. Tonic, second inversion dominant seventh, first inversion tonic, sub-dominant, supertonic, first inversion dominant, tonic, first inversion tonic, dominant. Repeat the same succession of chords, adding tonic at the end to make a full close. (From Scherzo in Beethoven's Sonata Op. 31, No. 3.)
2. Key D. Tonic, second inversion dominant seventh, first inversion tonic, tonic, first inversion dominant, dominant, tonic, first inversion supertonic, second inversion tonic, dominant; tonic in E minor, second inversion dominant seventh in E minor, first inversion tonic in E minor, second inversion dominant seventh in D, first inversion tonic, tonic, dominant seventh, tonic. (From Minuet in Beethoven's Sonata in D Op. 10, No. 3.)
3. Key F. Tonic, first inversion tonic, dominant seventh, sub-mediant, first inversion tonic, first inversion seventh on supertonic, second inversion tonic, dominant; tonic, first inversion tonic, dominant seventh, sub-mediant, first inversion supertonic, first inversion tonic, sub-dominant, second inversion tonic, dominant, tonic. (From the Andante in Mozart's Sonata in A minor.)
4. Write the first section of a minuet on the following chords, and compose a second section to bring the movement to an end. Key A flat. Tonic, second inversion dominant seventh, first inversion tonic, first inversion dominant in B flat minor, B flat minor chord, first inversion dominant in A flat, tonic in A flat, first inversion supertonic, second inversion tonic, dominant; tonic, second inversion dominant seventh, first inversion tonic, last inversion dominant seventh in E flat, first inversion tonic in E flat, second inversion dominant seventh, tonic, first inversion supertonic, dominant seventh, tonic, all in E flat. (From the Trio to the Minuet in Schubert's Sonata in E flat Op. 122.)

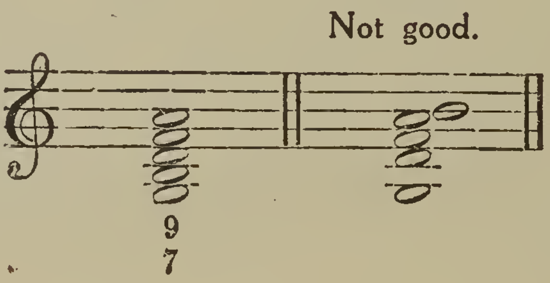
CHAPTER X.

The Dominant Ninth.

The dominant ninth is made by adding a major or minor third above the dominant seventh.

The major ninth has the following succession of thirds: major, minor, minor, major.

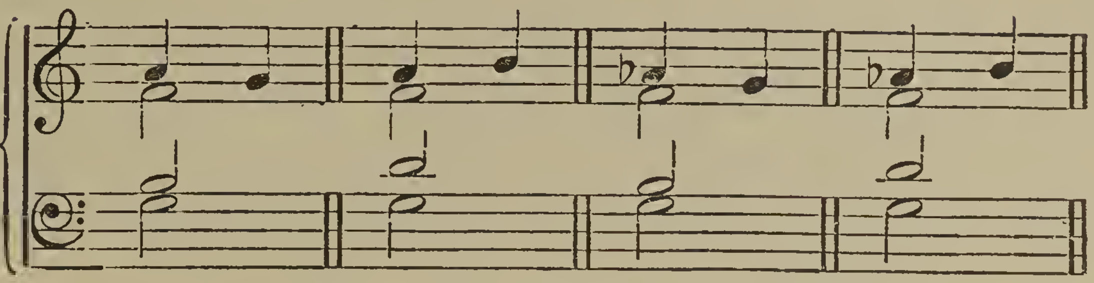
The minor ninth has its last third a minor instead of a major. The major ninth has thus two major and two minor thirds; the minor ninth one major and three minor thirds. The minor ninth can be used in both major and minor keys; the major ninth very rarely is found in the minor key. In writing the major ninth, the third should be *below* the ninth, otherwise these two notes make the interval of a second which is more dissonant than a seventh.



It will be seen that in this chord there are two dissonant notes, the ninth and the seventh. When this is the case it is always possible to take the top dissonance to another note in the same chord, while the rest of the chord remains; but in vocal music, the note on which the dissonance resolves should not be sounded with it, unless it is the root and comes in the bass.

As a general rule the dissonance resolves on the note next to it, either below or above.

Therefore, in the case of the dominant ninth in the key of C, the ninth A may either go to C or to B, but if it goes to B, no other part may sound the B.

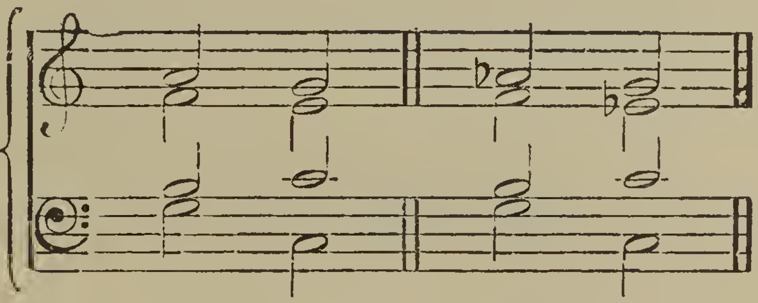


As there are five notes in the chord of the ninth, in four-part writing one must be omitted. The fifth is left out unless the ninth resolves on the third, in which case the third must be omitted.

The ninth, especially in instrumental writing, may resolve on other notes in the chord than the root and third.

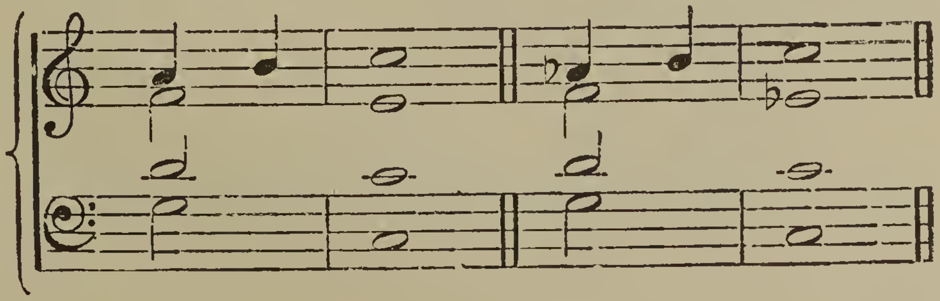
For example in the extract from Beethoven (page 65) the ninth resolves on the fifth of the same chord.

When the whole chord resolves, the ninth, following the tendency of dissonant notes, falls a second, and the chord of resolution is the tonic common chord.



Exercise.—Play and write dominant ninths in major and minor keys and resolve them—first, by getting rid of the ninth; and secondly, by taking the whole chord to the tonic.

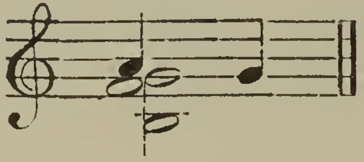
A cadence may be made by making the ninth rise to the third, before the final chord.



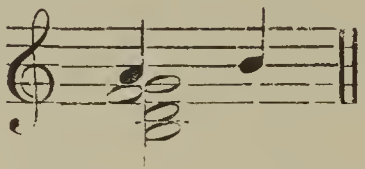
Exercise.—Play cadences in different keys, using the ninth before the dominant seventh.

In the first inversion of the ninth, the root is nearly always omitted. The reason of this is that it is seldom good to resolve a dissonant note on the same sound as one which appears in another part, unless that part is the bass. In particular two notes that make the interval of a second should not go to an unison.

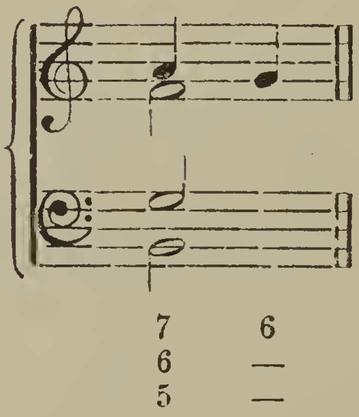
Not good.



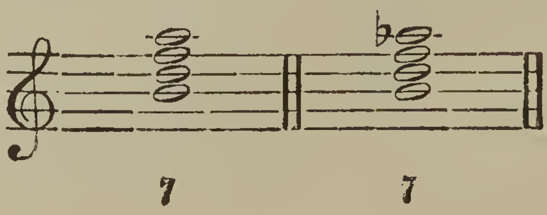
And if the ninth rose to the third, the leading-note would be doubled.



Practically, the only way to write the first inversion with the root in the chord is to place the root in the tenor some distance away from the ninth.



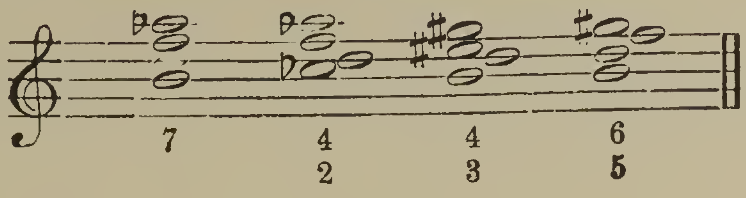
When the root is omitted, the chord appears as a seventh on the leading-note, having two minor thirds and a major third, or three minor thirds.



The first is known as the *Leading Seventh*, the other the *Diminished Seventh*.

The diminished seventh, consisting as it does of three minor thirds, is the most ambiguous chord in all music. It has this peculiarity—that, by enharmonic change, it can appear on the leading-note of four keys and always sound the same, but be in each case in a different inversion.

Thus

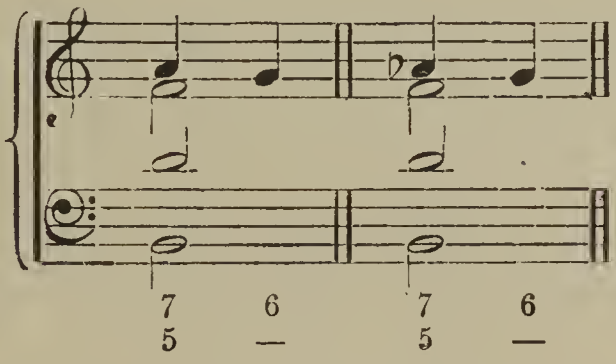


It is, therefore, very much used in effecting modulations, as will be seen later.

Exercise.—Write and play leading and diminished sevenths in *all* keys.

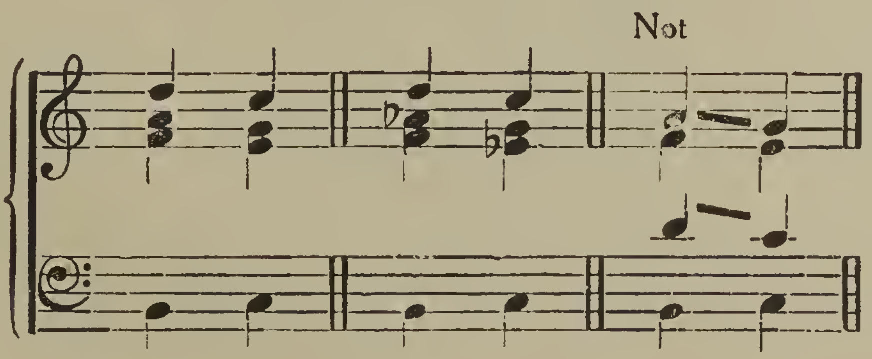
In the original position the seventh—the original ninth—may resolve while the rest of the chord remains.

The next chord will then be the first inversion of the dominant seventh, which must be resolved in its turn.



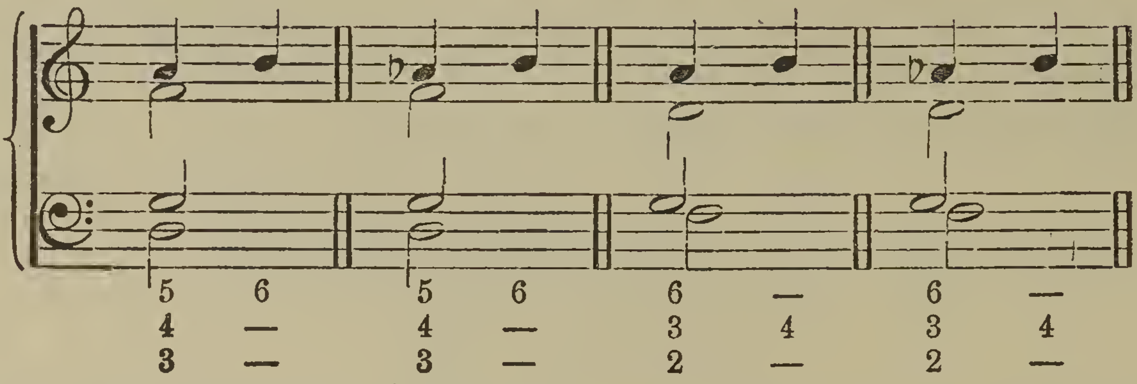
Or the whole chord may resolve on the tonic.

In this case, it is best to write the third *above* the seventh, so as to avoid any danger of consecutive fifths.

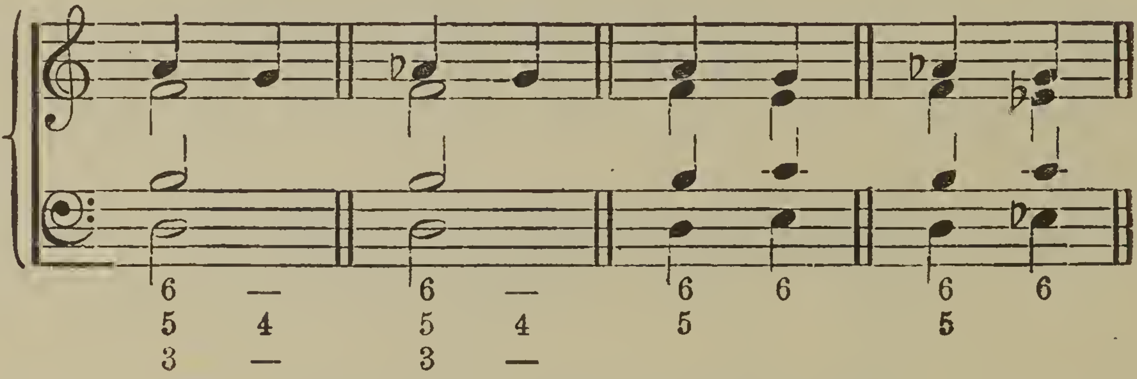


In the second and third inversions, the root may be inserted in the chord, provided the ninth resolves on the third, while the other parts remain.

The next chord will then be the second or third inversion of the dominant seventh.

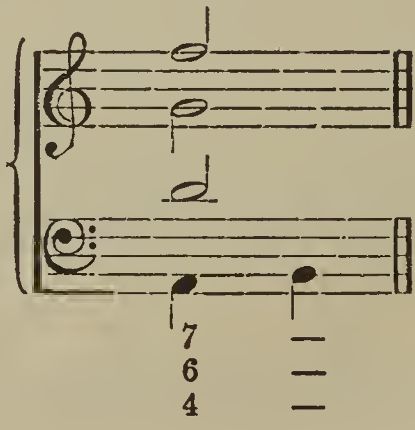


When the root is omitted, these chords appear as the first and second inversions of the leading or diminished seventh and resolve as in the original position—that is to say, the seventh may resolve first, or the whole chord may resolve on an inversion of the tonic.

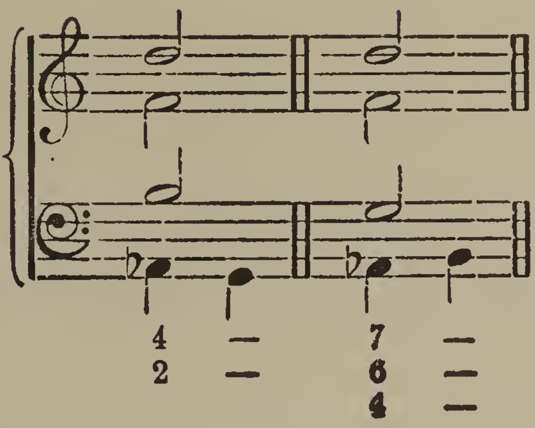


The last inversion of the major ninth can rarely be used, because of the harsh effect produced by writing the ninth below the third.

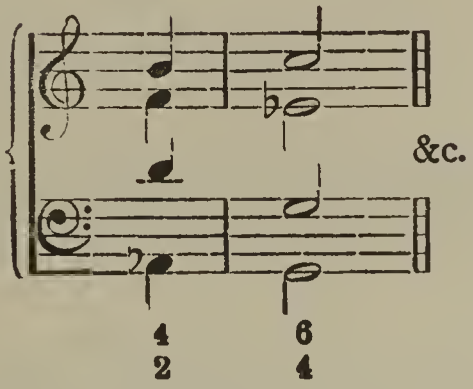
It can be used, however, when the third is omitted, in which case the ninth resolves on the third.



The last inversion of the minor ninth can be used both when the ninth resolves on the root or third of the same chord.



When the whole chord resolves, this inversion will go to a ${}^{6}_{4}$ chord.



The student must notice that when the ninth resolves while the other parts remain, it generally goes to a note which is not sounded in any other part.

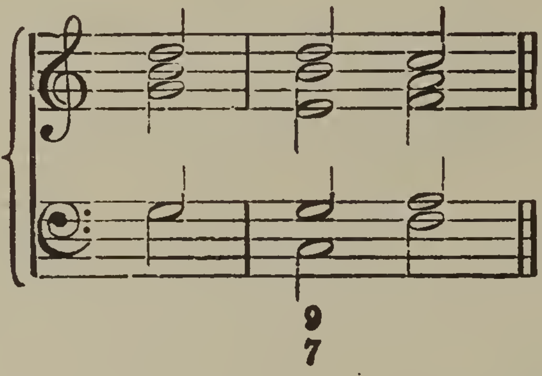
Exercise.—Write and play dominant major and minor ninths and their inversions in several major and minor keys, and resolve them.

Secondary Ninths.

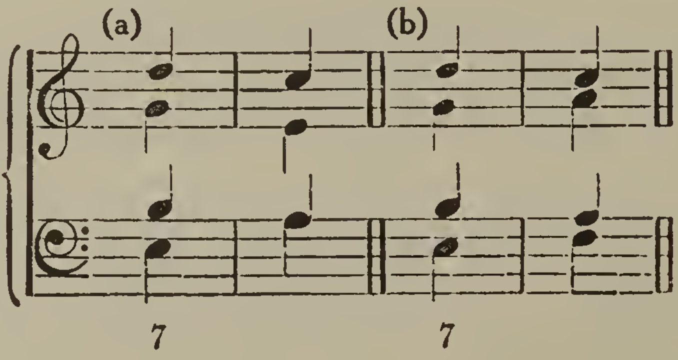
Just as a seventh can be written on any degree of the scale, so also can a ninth, but the effect is generally so harsh that these chords are seldom used. In the major key, the ninth on the tonic is made up of a major third, minor third, major third, minor third; on the supertonic, minor third, major third, minor third, major third; on the mediant, minor third, major third, minor third, minor third; on the sub-dominant, major third, minor third, major third, minor third; on the sub-mediant, minor third, major third, minor third, major third; on the leading-note, minor third, minor third, major third, minor third.

In the minor key, the ninth on the tonic consists of minor third, major third, minor third, major third ; on the supertonic, minor third, minor third, major third, minor third ; on the mediant, major third, minor third, major third, minor third ; on the sub-dominant, minor third, major third, minor third, major third ; on the sub-mediant, major third, minor third, major third, minor third (the leading-note being flattened), on the leading-note, minor third, minor third, minor third, major third.

In the resolution these ninths follow the same principles as in the resolution of the sevenths—that is to say, the root ascends a fourth or descends a fifth, the dissonant notes descend a second. Both the ninth and the seventh need preparation on account of their harsh character.

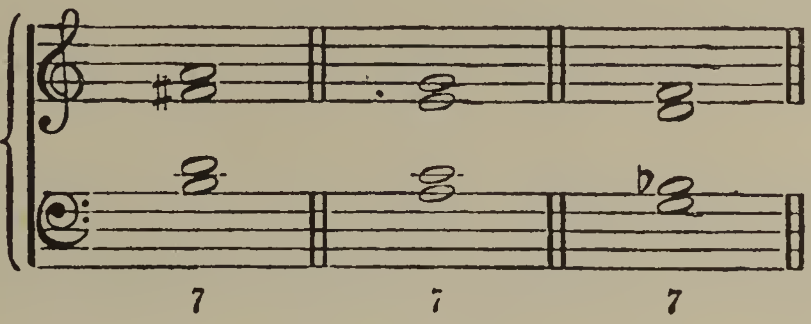


On account of the very dissonant character of these chords, the root is usually omitted. The chords will now be identical with secondary sevenths, and can only be distinguished by the resolutions. When the ostensible root only appears to rise a second, the chord should be analysed as a ninth with the root omitted.



In Example (a) the bass note rises a fourth : it will therefore be the root and the chord a secondary seventh. In (b) the bass note rises a second : the root will therefore be C, which is omitted in order that the resolution may follow the principle of the root rising a fourth. The inversions are very rarely used, but the second inversion is possible when the root is omitted.

Exercise.—Resolve the following chords, first as sevenths then as ninths, in different keys.



Fill up the following figured and unfigured basses, analysing each chord:—

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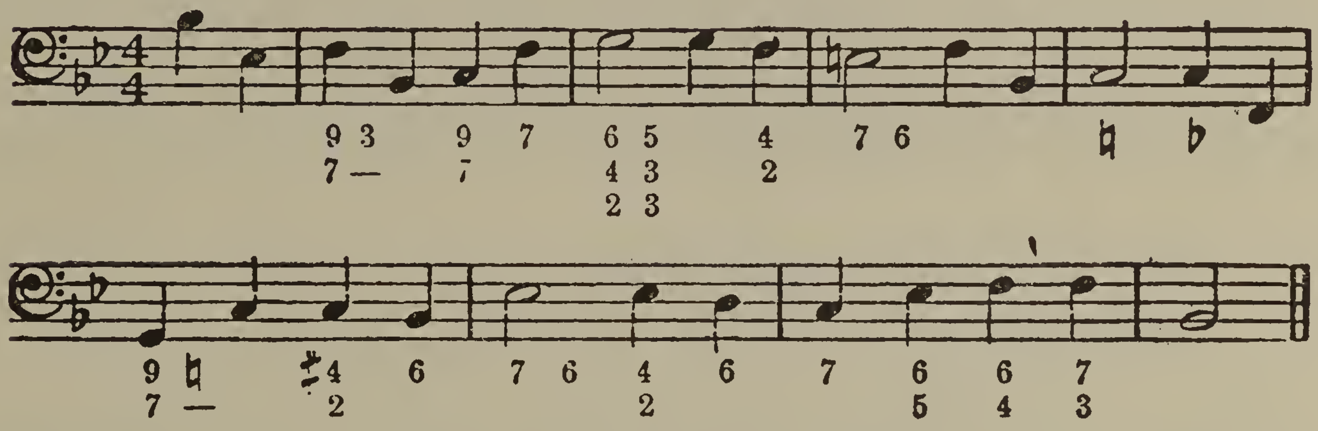

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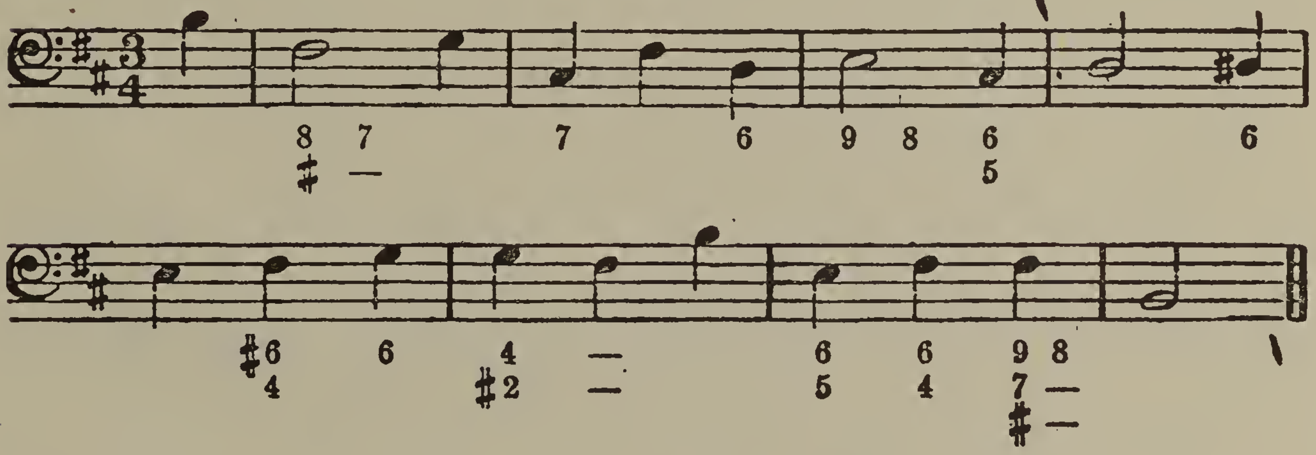

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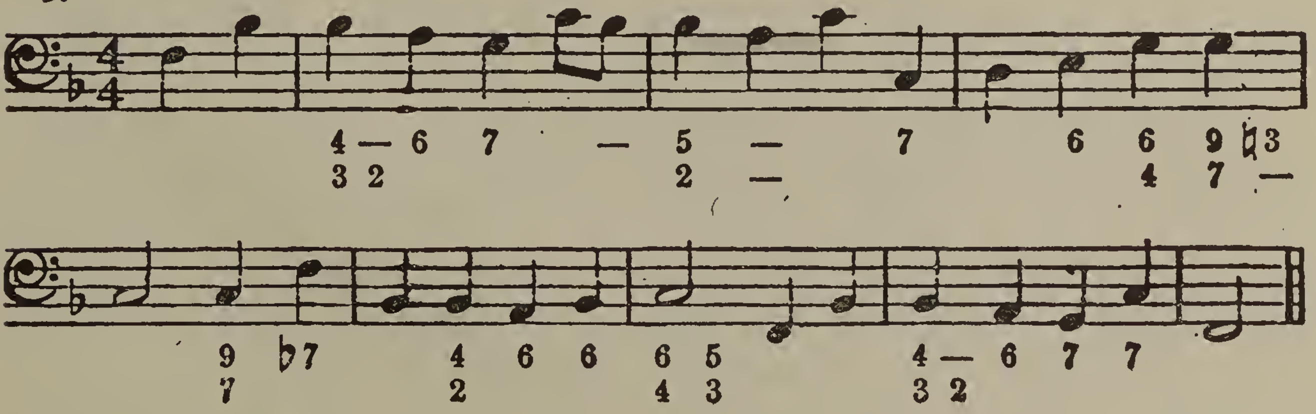

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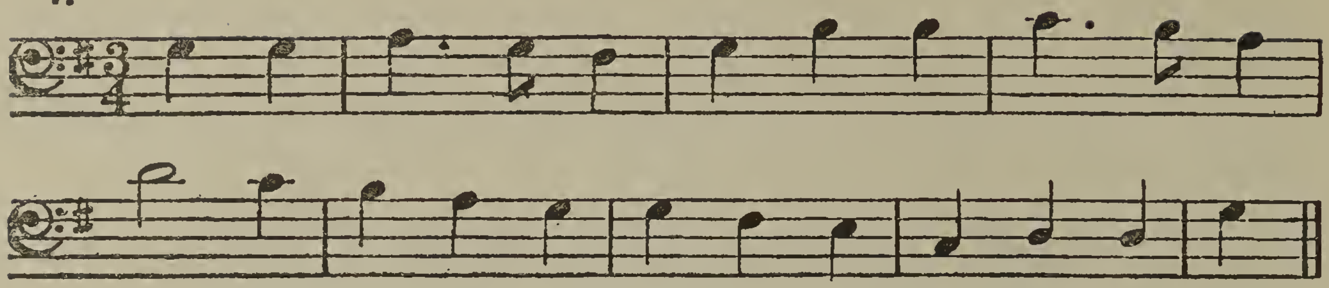

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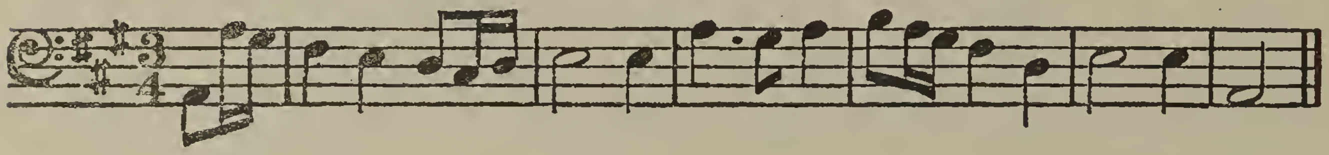

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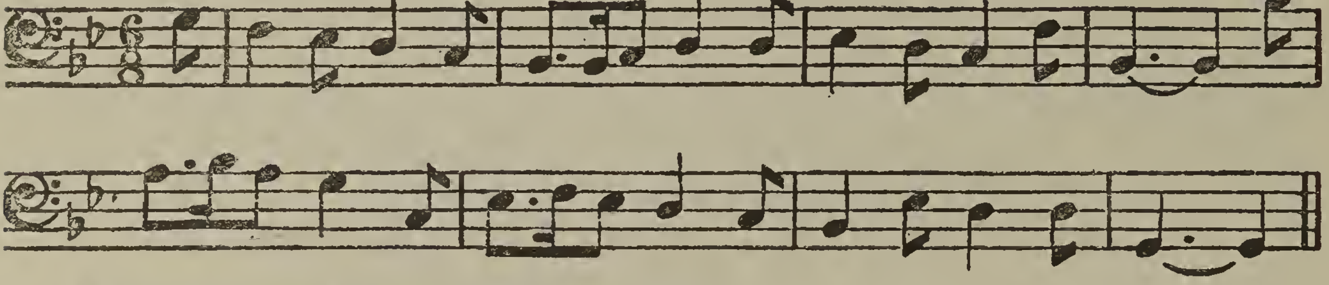
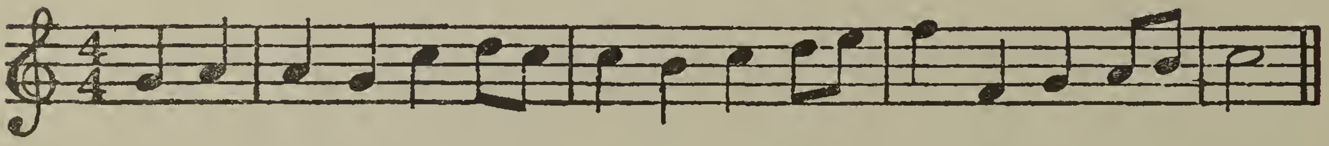


Harmonise the given melodies.

Melodies.

1.



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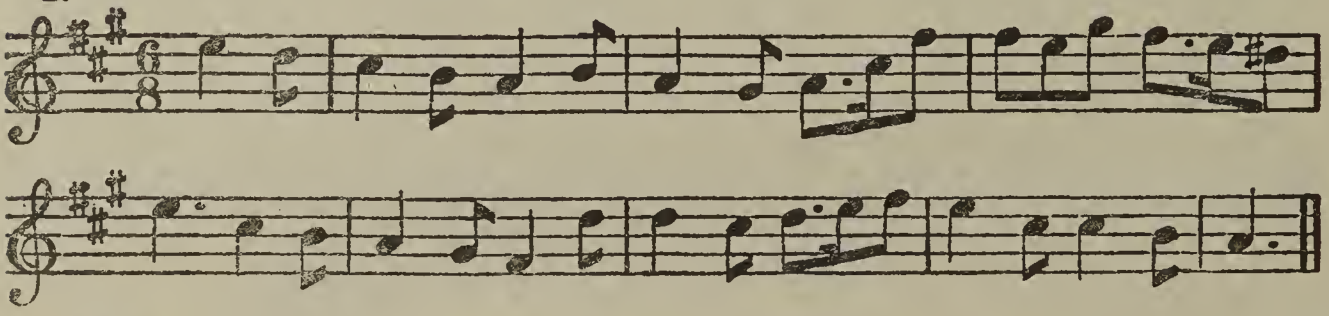

Write the following succession of chords: first simply, and then as a composition, using passing-notes, appoggiaturas, auxiliary notes, and suspensions.

Key B flat major. Tonic, first inversion seventh on supertonic, second inversion leading seventh, first inversion tonic, seventh on supertonic, first inversion tonic, second inversion tonic, diminished seventh in G minor, tonic in G minor, diminished seventh in F, tonic in F, first inversion seventh on supertonic in F, dominant seventh in F, tonic in F; D minor chord, first inversion D minor, second inversion diminished seventh in D minor, last inversion dominant seventh in D minor, first inversion tonic D minor, first inversion supertonic in C minor, last inversion dominant seventh C minor, first inversion tonic C minor, second inversion leading seventh in B flat, first inversion tonic, sub-dominant, seventh on supertonic, second inversion tonic, dominant seventh, tonic.

Write the diminished seventh in E minor, change it enharmonically, and resolve in four keys.

Write chords in F minor and introduce the diminished seventh.

The student should correlate the work he is doing in harmony with whatever study he is engaged on for the purpose of practical performance, by noting the construction, the phrase-form, the treatment of the material, and the harmonies used in every composition he is learning. By so doing he will gain an insight into the principles of composition and the use of the harmonic progressions he has been studying.

Additional Exercises.

Make compositions on the following chords :—

Key E flat. Tonic, first inversion tonic, sub-dominant, leading seventh, tonic, diminished seventh in F minor, F minor chord, diminished seventh in G minor, G minor chord, last inversion dominant seventh in C minor, first inversion C minor chord, second inversion tonic in B flat, dominant seventh in B flat, tonic; diminished seventh in C minor, C minor chord, diminished seventh in D minor, D minor chord, diminished seventh in E flat, tonic in E flat, second inversion diminished seventh in A flat, first inversion A flat chord, second inversion tonic in E flat, first inversion seventh on supertonic, second inversion tonic, dominant seventh, tonic.

Harmonise the melodies :—

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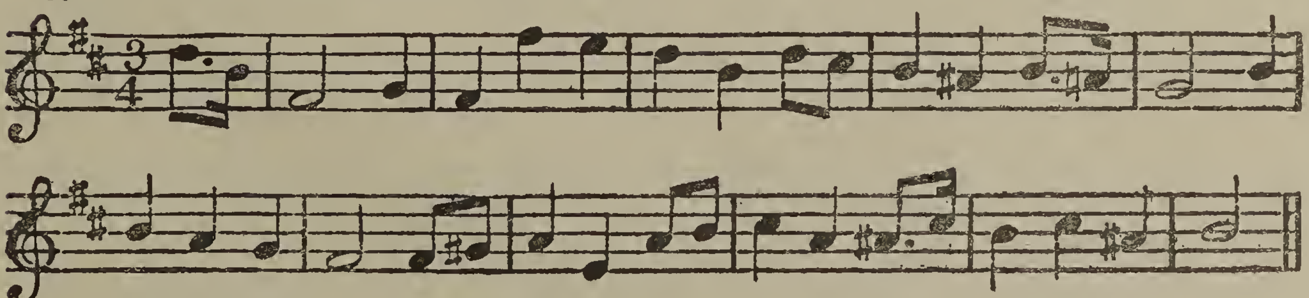
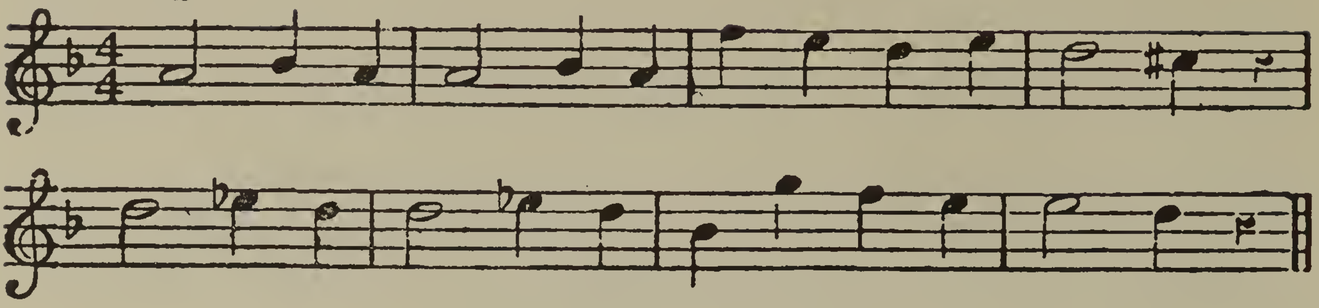


2. *Adagio.*



Harmonise and complete the following :—

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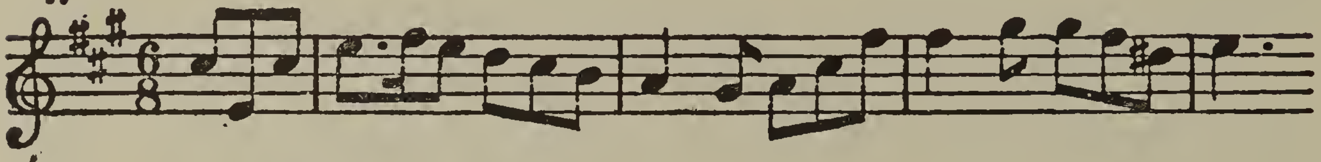

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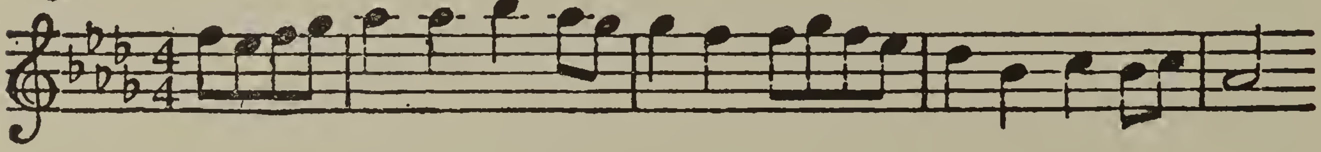

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